



## *Department of Defense (DoD) and Air Force (AF) Directives and Instructions*

### *Section B*

## Introduction

The Department of Defense and Air Force Domestic Technology Transfer (T<sup>2</sup>) Directives and Instructions provide guidance in response to Public Laws (Section A) passed by Congress.

DoD Directive 5535.3, May 21, 1999, briefly addresses policy, responsibilities and reporting requirements. DoD Instruction 5538.8, May 14, 1999 goes into detail on responsibilities, procedures, information requirements, and definitions.

Air Force Policy Directive 61-3, 6 Feb 2001, was rewritten to align the Air Force Policy more



directly with DoD Policy on domestic technology transfer. The directive establishes reporting requirements,

emphasizes that T<sup>2</sup> is integral to the mission, specifically states the responsibility of scientists and engineers to promote technology transfer, and that T<sup>2</sup> activities are a priority in Air Force acquisition programs. The technology transfer focal points are identified as managers of the organization T<sup>2</sup> program and their participation in the Air Force Technology Transfer Integrated Planning Team is required.

Air Force Instruction (AFI) 61-301 establishes policies and procedures for the domestic technology transfer (DTT) process and the offices of research and technology applications (ORTAs). This instruction updates, clarifies, and streamlines previous guidance in accordance with DoD Directive 5535.3 and DoD Instruction 5535.8. Moreover, this instruction reflects the realignment of duties and office symbol changes as well as correctly delineates

the responsibilities of the various legal offices. These changes are reflected in sections 1 and 4. The changes to section 2 now accurately reflect what types of agreements the laboratory commanders or directors have the authority to sign and more accurately describes their responsibilities for the technology transfer mission. Section 3 clearly delineates the ORTAs roles and responsibilities. Section 5 reflects the changes to the Stevenson-Wydler Technology Innovation Act and the responsibilities of various offices to handle royalty payments. Section 8 reflects the current Air Force instruction for awards. A new section 9 was added to accurately reflect that donations and loans of various laboratory equipment can be made directly to educational institutions and non-profit organizations.



AFI 61-302 establishes policies and procedures for executing Cooperative Research and Development Agreements (CRADAs) and licenses or assignments of intellectual property developed under CRADAs between the Air Force and the public and private sector, including industry and academia. This instruction updates, clarifies, and streamlines previous guidelines for CRADAs. It broadens



applicability to all laboratories and/or technical activities, includes updates from changes in the public law, and uses the Air Force Technology Transfer Handbook as the source of operational guidelines. It also incorporates AFI 61-303, Licensing Inventions Made Under Cooperative Research And Development Agreements.



# Department of Defense **DIRECTIVE**

May 21, 1999  
NUMBER 5535.3

DDR&E

SUBJECT: DoD Domestic Technology Transfer (T2) Program

References: (a) DoD Directive 5535.3, "Licensing of Government-Owned Inventions by the Department of Defense," November 2, 1973 (hereby canceled)  
(b) Secretary of Defense Memorandum, "DoD Domestic Technology Transfer/ Dual Use Technology Development," June 2, 1995 (hereby canceled)  
(c) DoD 3200.12-R-4, "Domestic Technology Transfer Program Regulation," December 1988, authorized by DoD Directive 3200.12, February 11, 1983 (hereby canceled)  
(d) Sections 3702, 3703, 3705, 3706, 3710, 3712, 3715 of title 15, United States Code  
(e) through (k), see enclosure 1

## 1. REISSUANCE AND PURPOSE

This Directive:

- 1.1. Reissues reference (a) and supersedes references (b) and (c).
- 1.2. Implements, establishes policy, and assigns responsibility for DoD domestic T2 activities under reference (d), as they apply to the Department of Defense, and under 10 U.S.C. (reference (e)), as they apply to the T2 activities of the Department of Defense.

## 2. APPLICABILITY

This Directive applies to the Office of the Secretary of Defense (OSD), the Military Departments, the Defense Agencies, and the DoD Field Activities (hereafter referred to collectively as "the DoD Components").

## 3. DEFINITIONS

The following terms, used in this Directive, are defined in DoD Instruction 5535.8 (reference (f)):

- 3.1. Cooperative Research and Development Agreement (CRADA).

3.2. Laboratory (as broadly defined in 15 U.S.C. 3710a(d)(2)(A), reference (d), for this Directive).

3.3. Nonprofit institution (Sections 3703 and 3710(i) of reference (d) and E.O. 12999 (reference (g)) for this Directive).

3.3. Technical assistance.

3.5. T2.

#### 4. POLICY

It is DoD policy that:

4.1 Consistent with national security objectives under 10 U.S.C. 2501 (reference (e)), domestic T2 activities are integral elements of DoD pursuit of the DoD national security mission and concurrently improve the economic, environmental, and social well-being of U.S. citizens (Section 3702 of reference (d)). Concurrently, T2 supports a strong industrial base that the Department of Defense may utilize to supply DoD needs. Those activities must have a high-priority role in all DoD acquisition programs and are recognized as a key activity of the DoD laboratories and all other DoD activities (such as test, logistics, and product centers and depots and arsenals) that may make use of or contribute to domestic T2.

4.2 Domestic T2 programs, including spin-off, dual use, and spin-on activities, make the best possible use of national scientific and technical capabilities to enhance the effectiveness of DoD forces and systems.

4.3. It is further DoD policy to:

4.3.1 Promote domestic T2 through a variety of activities, such as CRADAs, cooperative agreements, other transactions, education partnerships, State and local government partnerships, exchange of personnel, presentation of technical papers, and other ongoing DoD activities.

4.3.2. Promote domestic T2 through U.S. and foreign patenting, patent licensing, and protecting other intellectual property rights. DoD inventions applicable for licensing shall be publicized to accelerate transfer of technology to the domestic economy. T2 is of the greatest benefit when the patented invention is commercialized (35 U.S.C. 200 and 207, reference (h)).

4.3.3. Allow non-Federal entities to use independent research and development funding as a part of their contributions to domestic T2 activities, including CRADAs, cooperative arrangements, and other transactions (Subpart 31.205-18(e) of the FAR, reference (i)).



4.3.4. Include domestic T2 as a duty and responsibility in position descriptions for applicable scientific, engineering, management, and executive positions.

4.3.5. Allow CRADAs between a DoD Component and DoD contractors, in accordance with DoD conflict of interest rules (DoD Directive 5500.7, reference (j)) and export control laws and regulations.

4.3.6. Ensure that domestic transfers of technology are accomplished without actual or apparent personal or organizational conflicts of interest or violations of ethics standards.

4.3.7. Allow conduct of T2 activity with foreign persons, industrial organizations, or government R&D activities, in accordance with export control laws, regulations, and policies and laws, regulations and policies governing foreign military sales (FMS). Consideration should be given to whether or not the government of such persons or industrial organization allows similar relationships and whether such activities benefit the U.S. industrial base and are consistent with the U.S. export control and FMS frameworks (E.O. 12591, reference (k)).

4.3.8. Encourage domestic T2 by giving preference to U.S. small business firms, consortia involving U.S. small business firms, and firms located in the United States.

## 5. RESPONSIBILITIES

5.1. The Under Secretary of Defense for Acquisition and Technology shall ensure that the Director, Defense Research and Engineering, shall:

5.1.1. Implement 10 U.S.C. 2515 (reference (e)) to monitor all DoD R&D activities; identify DoD R&D activities using technologies and technology advancements that have potential non-DoD commercial application; serve as a clearinghouse for, coordinate, and otherwise help the transfer of technology to the U.S. private sector; assist private firms to resolve policy issues involved with the transfer of technology from the Department of Defense; and consult and coordinate with other Federal Departments on matters involving T2.

5.1.2. Serve as oversight authority for execution of all domestic T2 science and technology (S&T) matters and coordination with, as applicable, other DoD officials for matters under their oversight. As part of that oversight, the Director, Defense Research and Engineering, (DDR&E) shall define core domestic T2 S&T mechanisms and provide policy guidance for DoD Component investments in such mechanisms.

5.1.3. Develop policy for DoD Component participation in, and support of, Federal S&T domestic T2 programs.

5.1.4. Develop guidance for implementation of domestic T2 policy, to include coordination with other DoD officials for matters under their cognizance.



5.1.5. Coordinate input from the DoD Components and prepare reports to the Congress, as required by 15 U.S.C. (reference (d)) and reference (e), the Office of Management and Budget, and others, as may be imposed by higher authority.

5.1.6. Ensure that the DoD Components establish T2 awards programs and make applicable T2 awards.

5.1.7. Ensure that the Administrator, Defense Technical Information Center (DTIC), maintains and provides development support for T2 databases useful to the Office of the DDR&E (ODDR&E) and the DoD Components.

5.2. The Secretaries of the Military Departments and the Heads of the other DoD Components, including the Directors of the Defense Agencies, under the OSD Principal Staff Assistants, shall:

5.2.1. Ensure that domestic T2 is a high priority in their organizations. That includes establishing processes to promote T2 and developing plans for improving T2 for matters under their oversight, to include specific objectives and milestones.

5.2.2. Provide inputs for reports, as required by the ODDR&E, including T2 transaction and program investment data to DTIC.

5.2.3. Develop personnel policies for R&D executives, managers, laboratory directors, scientists, and engineers that make domestic T2 a critical factor for consideration in promotions, a critical element in performance appraisals, and a duty and responsibility in position descriptions where applicable. Those policies also shall ensure that members of the Office of Research and Technology Applications (ORTA) staff are included in the overall laboratory and/or Agency and/or DoD Field Activity management development programs.

5.2.4. Execute a T2 education and training program for scientists and engineers and other personnel who may be involved in domestic T2.

5.2.5. Establish an awards program, including cash awards, to recognize domestic T2 accomplishments.

5.2.6. Institute policies for protecting inventions and other intellectual property arising from Federally supported R&D. That includes policies for patenting inventions, licensing the patented inventions, and maintaining the patents with commercial potential. Costs and expenses to acquire and maintain those patents shall be funded by the DoD Components. That shall not preclude collaborating parties from paying costs and expenses associated with protecting intellectual property rights.

5.2.7. Institute policies under which laboratories may be authorized to license, assign, or waive rights to intellectual property and distribute royalties and other payments, in accordance with DoD Instruction 5535.8 (reference (f)).

5.2.8. Implement marketing and outreach programs.

5.2.9. Provide support of mission-related domestic T2 activities with mission program element funds and ensure that domestic T2 programs have adequate staff and resources, giving particular attention to payment of salaries and travel expenses of scientific, engineering, legal, and ORTA personnel involved in T2. That includes costs and expenses associated with initiation and/or negotiation of CRADAs and other agreements.

5.2.10. Ensure implementation of all T2 functions, as required in 15 U.S.C. 3710(c) (reference (d)), by the ORTA or other domestic T2 focal points.

5.2.11. Allow use of partnership intermediaries to obtain domestic T2 support. Approval authority may be redelegated to the heads of the DoD laboratories.

5.2.12. Ensure that the directors and/or the commanders of laboratories make domestic T2 a high-priority element of their S&T programs by plan, budget, and execution.

5.2.13. Ensure that laboratories and other activities prepare applications assessments for selected R&D projects that may have commercial applications.

5.2.14. Encourage laboratories to provide technical assistance services, including help by technical volunteers, to State and local governments, school systems, and other organizations, where applicable.

5.3. The Heads of the DoD Components (other than the Secretaries of the Military Departments), including the Directors of the Defense Agencies, under the OSD Principal Staff Assistants, are delegated the authority of the Secretary of Defense to:

5.3.1. Loan, lease, or give research equipment or educationally useful Federal equipment, consistent with export control laws and regulations, which is excess to the needs of the laboratory to an educational institution or nonprofit institution for the conduct of technical and scientific education and research activities (Section 3710(i) of reference (d), and E.O. 12999 and 10 U.S.C. 2194, references (g) and (e)). That authority may be further delegated.

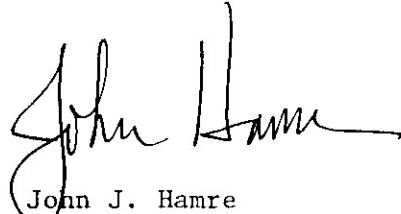
5.3.2. Enter into CRADAs with entities other than foreign governmental entities (Section 3710a of reference (d)). That authority may be further delegated.

## 6. INFORMATION REQUIREMENTS

The Secretaries of the Military Departments and the Heads of the other DoD Components shall provide inputs for reports, as required by the ODDR&E in paragraph 5.2.2., above, including T2 transaction and program investment data to the DTIC under Reports Control Symbol DD-Λ&T(A) 2020.

7. EFFECTIVE DATE

This Directive is effective immediately.

A handwritten signature in black ink, appearing to read "John Hamre". The signature is fluid and cursive, with the first name "John" and last name "Hamre" clearly distinguishable.

John J. Hamre  
Deputy Secretary of Defense

Enclosure

E.1. References



E1. ENCLOSURE 1

REFERENCES, continued

- (e) Sections 2501, 2506, 2514-2516, 2358, 2371, 2194, 2195 of title 10, United States Code
- (f) DoD Instruction 5535.8, "DoD Technology Transfer Program Procedures," May 14, 1999
- (g) Executive Order 12999, "Educational Technology: Ensuring Opportunity for All Children in the Next Century," April 17, 1996
- (h) Sections 200 and 207-209 of title 35, United States Code
- (i) Federal Acquisition Regulation, Subpart 31.205-18(e), "Independent Research and Development and Bid and Proposal Costs," current edition
- (j) DoD Directive 5500.7, "Standards of Conduct," August 30, 1993
- (k) Executive Order 12591, "Facilitating Access to Science and Technology," April 10, 1987

SUBJECT: DoD Technology Transfer (T2) Program

References: (a) DoD Directive 5535.3, "Department of Defense Technology Transfer (T2) Program," May 21, 1999  
(b) DoD 5025.1-M, "DoD Directives System Procedures," August 1994, authorized by DoD Directive 5025.1, June 24, 1994  
(c) Sections 2501, 2506, 2514, 2516, 2358, 2371, 2194, 2195 of title 10, United States Code  
(d) Sections 3702, 3703, 3705, 3706, 3710, 3712, 3715 of title 15, United States Code  
(e) through (o), see enclosure 1

## 1. PURPOSE

This Instruction:

1.1. Implements policy, assigns responsibilities, and prescribes procedures under reference (a) for implementation of T2 programs.

1.2. Authorizes issuance of DoD 5535.8-H, in accordance with reference (b).

## 2. APPLICABILITY

This Instruction applies to the Office of the Secretary of Defense (OSD), the Military Departments, the Defense Agencies, and the DoD Field Activities (hereafter referred to collectively as "the DoD Components").

## 3. DEFINITIONS

Terms used in this Instruction are defined in enclosure 2.

## 4. POLICY

It is DoD policy under DoD Directive 5535.3 (reference (a)) that, consistent with U.S. security objectives set out at 10 U.S.C. 2501 (reference (c)), T2 activities shall be an integral element of the DoD national security mission, a high-priority role in all DoD acquisition programs, and recognized as a key activity of the DoD laboratories and/or technical activities and all other DoD activities that may make use of or contribute to T2.

## 5. RESPONSIBILITIES

5.1. The Director, Defense Research and Engineering, under the Under Secretary of Defense for Acquisition and Technology, shall monitor compliance with this Instruction and DoD Directive 5535.3 (reference (a)).

5.2. The Deputy Director, Defense Research and Engineering, Technology Transition, shall:

5.2.1. Fulfill requirements in 10 U.S.C. 2515 (reference (c)), to:

5.2.1.1. Monitor all DoD research and development (R&D) activities.

5.2.1.2. Identify R&D activities using technologies and technology advancements that have potential non-DoD commercial application.

5.2.1.3. Serve as a clearinghouse for, coordinate, and otherwise facilitate T2 to the private sector.

5.2.1.4. Assist private firms to resolve problems involved with the transfer of technology from the Department of Defense.

5.2.1.5. Consult and coordinate with the other Federal Departments on matters involving T2.

5.2.2. Circumscribe core T2 science and technology (S&T) mechanisms for DoD Component investment. That procedure is prescribed in section 6., below.

5.2.3. Ensure effective and consistent application of U.S. and DoD guidance impacting the participation of foreign individuals and organizations in DoD T2 transactions.

5.2.4. Issue DoD 5535.8-H to provide common practices, procedures, and processes necessary to promote a uniform DoD approach to T2 between the Department of Defense and its partners.

5.3. The Secretaries of the Military Departments and the Heads of the Other DoD Components, including the Directors of the Defense Agencies, under the OSD Principal Staff Assistants, shall be responsible for:

5.3.1. Accomplishing T2 in their organizations, as defined in DoD Directive 5535.3, subsection 5.2. (reference (a)).

5.3.2. Ensuring that all DoD laboratories and/or technical activities, as defined in 15 U.S.C. 3710a(d)(2) (reference (d)), and all other organizations capable of supporting or making use of T2, shall make T2 a high priority in accomplishing their programs.



## 6. PROCEDURES

6.1. The DoD Components may participate in, and shall support, Federal S&T T2 programs. That includes, BUT IS NOT LIMITED TO, the following:

6.1.1. Each DoD Component shall transfer funds to the National Institute of Standards and Technology to support the Federal Laboratory Consortium (FLC), as required in 15 U.S.C. 3710e(7)(A)-3710e(7)(C) (reference (d)).

6.1.2. Federal resources such as the National Technology Transfer Center and the Regional Technology Transfer Centers managed through the National Aeronautics and Space Administration and the National Technical Information Service may be used, when applicable.

6.1.3. Ongoing programs or projects supporting U.S. initiatives such as the Partnership for a New Generation Vehicle are encouraged.

6.1.4. Laboratory personnel are encouraged to participate in conferences, seminars, workshops, and other mission-related technical activities of interest due to the mission of the particular laboratory.

6.1.5. Collaborative efforts between the DoD laboratories and/or technical activities or between DoD laboratories and other Federal Agency activities are encouraged.

6.2. The DoD Components are encouraged to use any combinations of spin-off, dual-use, and spin-on mechanisms that are most effective for accomplishment of T2 objectives.

6.2.1. T2 ensures DoD programs make the best possible use of national scientific and technical capabilities to enhance the effectiveness of DoD forces and systems. Commercial availability of DoD developed technologies can be expected to lower the costs of acquiring military equipment by providing the opportunity to take advantage of economies of scale and buy from a larger commercial industrial base. The following mechanisms are core DoD T2 mechanisms and as such should be part of DoD Component's investment strategies. The list, while extensive, is not meant to be exclusive of other mechanisms.

6.2.1.1. Cooperative Research and Development Agreements - CRADAs should be used whenever possible to expand capabilities for R&D and to transfer technology developed jointly or independently to enhance both defense capabilities and the civilian economy. The cost and expense of development, negotiation, and implementation of CRADAs should be funded from laboratory resources.

6.2.1.2. Other core T2 mechanisms include, alphabetically: contracts, cooperative agreements, education partnerships, exchange of personnel, exchange of technical data, grants, other transactions, partnerships with universities, patenting, patent license agreements and other

intellectual property licensing agreements, presentations of technical papers, technical assistance, and technology assessments.

6.2.2. That recommendation aligns DoD T2 with other elements in the DoD new acquisition strategy, which gives greater emphasis to dual-use technology development and spin-on from the private sector. Several considerations, which are also relevant for T2, have prompted that new strategy. Affordability is a key consideration in weapon system acquisition and sustainment, where the commercial acquisition of products provides economies of scale and resulting cost savings. The Department of Defense frequently will benefit from making DoD-developed technologies available to the commercial sector so that subsequent DoD acquisitions may benefit from such economies of scale.

6.2.3. Dual-use and spin-on also take advantage of the strategic advantages inherent in the U.S. civilian economy and technology base. A DoD-unique acquisition strategy may result in the fielding of obsolescent systems.

6.2.4. The increased attention being given to dual-use and spin-on does not mean that there is no longer an important role for in-house research, development, test, and evaluation (RDT&E) in the DoD Components. Some technologies are unique to the DoD missions. Some technological capabilities may be adapted to make them fully suitable for DoD applications. Despite those considerations, there has been a change in emphasis. The DoD Components are encouraged to experiment with new dual-use and spin-on mechanisms in T2.

6.3. The Heads of the DoD laboratories and/or technical activities, as defined in enclosure 2, shall prepare, with the business planning processes of their organizations, a T2 business plan that describes how the responsibilities prescribed in the DoD Directive 5535.3, paragraphs 5.2.1. through 5.2.14. (reference (a)), have been addressed for the current year. Those plans shall identify the activities for the year ahead and describe efforts to make improvements in that program.

6.4. To accomplish its role, the Director, Defense Research and Engineering (DDR&E), as the central authority and clearinghouse for DoD T2, requires various reports from the DoD Components. Those reports include, but are not limited to, the OMB Circular A-11 (reference (e)) report, the Defense T2 Information System (DTTIS) reports, and the DoD Component business plans. Those reports also help the DDR&E highlight DoD T2 successes as part of the reporting requirements to the Congress. Details on the DTTIS and other reporting requirements are in section 7, below, and in separate DDR&E issuances.

6.5. DoD Directive 5535.3 (reference (a)) requires that the Heads of the DoD Components shall develop personnel policies for R&D executives, managers, laboratory directors, scientists, and engineers that make T2 a critical element for position descriptions, job performance appraisals, and promotions. They are also required to ensure that members of the Office of Research and Technology Applications (ORTA) staff are included in the overall laboratory and/or Agency and/or DoD Field Activity management development programs. Procedures to accomplish that include, but are not limited to, the following:

6.5.1. Including statements in personnel position descriptions similar to those found in enclosure 3.

6.5.2. Including identification of critical factors for consideration in promotions for T2 personnel in the T2 business plans of the DoD Components.

6.5.3. Providing incentives for ORTA personnel such as training or future job assignments, as an incentive to attract the best people to those positions.

6.5.4. Making knowledge of T2 a required knowledge, skill, and ability for all laboratory scientific or engineering job announcements.

6.6. The implementation and execution of a viable T2 program requires education and training of personnel, including all scientists and engineers, and other personnel who may be involved in T2. All the DoD Components are encouraged to institute applicable organization-wide T2 training programs that provide personnel with the requisite knowledge base and skills. Some sources of training include the FLC, the NTTC, the Technology Transfer Society, the Association of University Technology Managers, colleges and universities, and other professional organizations.

6.7. Under the authorities of 15 U.S.C. 3710b and DoD 1400.25-M (references (d) and (f)), the Deputy DDR&E, recognizes S&T T2 achievements through a variety of mechanisms, including monetary rewards to DoD winners of FLC awards.

6.7.1. DoD recipients of FLC awards may receive a cash award. The amount may be provided to one Federal employee or appropriately divided if there is more than one Federal employee for each organization. When notified, the DoD Components shall provide the names of their FLC award recipient(s) to the ODDR&E. If cash awards are available, they shall be provided through personnel pay system disbursements.

6.7.2. Letters of appreciation and other forms of recognition may be issued for specific T2 accomplishments. Such honorary awards may be presented to individuals and teams, which may include Federal employees as well as non-Federal employees, who shall have made exceptional achievements in T2.

6.8. Patents are one of the original instruments of T2 and represent one of the clearest means to characterize an innovation and to describe how it may be of benefit to the user. Procedures for protecting intellectual property shall include the following:

6.8.1. Evaluation of inventions arising from R&D efforts.

6.8.2. Filing and prosecuting patent applications for those inventions selected as having sufficient benefit to justify obtaining patent protection.



6.8.3. Determination of which patents shall remain enforceable through payment of required maintenance fees.

6.8.4. Providing for payment of costs and expenses to acquire and maintain patents and other intellectual property from the program elements funds, overhead accounts, royalties or other payments, or other sources, as applicable, of the DoD Components. That does not preclude collaborating parties from paying costs and expenses associated with intellectual property rights.

6.9. Distribution of royalties and other payments received by the DoD Components.

6.9.1. Royalties or other payments received on account of any invention licensed by a DoD Component shall be payable to the inventor or each co-inventor, as prescribed in the remainder of this paragraph. The DoD Component shall pay to the inventor or each co-inventor each year, at least \$2,000 plus equal shares of at least 20 percent of the remainder of the royalties or other payments. In the absence of extrinsic evidence that co-inventors made unequal contributions to the invention, subject to review and approval by the concerned legal counsel for the DoD Component, it shall be presumed that the co-inventors made equal contributions to the invention and are entitled to equal shares of the 20 percent remainder of the royalties or other payments. If the royalties or other payments received in any given year are less than or equal to \$2,000, or for co-inventors, less than or equal to \$2,000 times the number of inventors, the entire amount is paid to the inventor, or for co-inventors, the entire amount is divided equally among the co-inventors. The inventor or co-inventors shall receive their prescribed share of any royalties or other payments, as received by the Government on an annualized basis.

6.9.2. Royalties or other payments from inventions to any one person shall not exceed \$150,000 for each year without Presidential approval, as in 5 U.S.C. 4504 (reference (g)).

6.9.3. A DoD Component or subordinate laboratory, when authority is delegated, may provide applicable incentives from royalties or other payments, to laboratory employees who are not inventors or co-inventors of such inventions, but who substantially increase the technical value of such inventions. When the incentive is in the form of a monetary payment, such payments may be at any level subject to the authority of the DoD Component or activity that approved the payment, but such payments shall not exceed the limits established in paragraphs 6.9.1. and 6.9.2., above. Payments may be on a one-time or annual basis, and they shall cease when the employee is no longer employed by that DoD Component.

6.9.4. Inventors shall be entitled to royalties or other payments income, as discussed in subsection 6.1. through paragraph 6.9.3., above, and paragraph 6.9.4. through subparagraph 6.9.5.3., below, regardless of the date of the invention.

6.9.5. Assignment and use of royalties or other payments income shall be applied, in accordance with the following schedule:

6.9.5.1. Royalties or other payments shall be used by the end of the second fiscal year (FY) succeeding the FY in which the royalties and other payments were received.

6.9.5.2. After assignment of royalties and other payments to inventors under paragraph 6.9.1., above, any remainder may be used for the following:

6.9.5.2.1. Payment of expenses incidental to administration and licensing of inventions and other intellectual property.

6.9.5.2.2. Other activities of the DoD Component that increase the licensing potential for transfer of DoD technology.

6.9.5.2.3. Scientific R&D consistent with the R&D mission and objectives of activities of the DoD Component.

6.9.5.2.4. Reward of scientific, engineering, and technical employees of activities of the DoD Component.

6.9.5.2.5. Promotion of scientific exchange among other activities in the DoD Component.

6.9.5.2.6. Education and training of employees consistent with the R&D mission and objectives of the Department of Defense.

6.9.5.3. Each DoD Component shall prescribe its own regulations as to whether inventors or co-inventors, whose whereabouts are unknown for 1 year, or more, are entitled to further royalty payments.

6.10. U.S. and DoD initiatives to stimulate economic competitiveness, reform the acquisition process, and integrate the civilian and defense industrial bases, all stress the need for improved interaction between the laboratories and/or technical activities and the industrial and academic sectors. Laboratories and/or technical activities shall have formal programs to stimulate "spin-off" and "spin-on" to eliminate the perception that the laboratories and/or technical activities compete with the private sector, and to develop new partnerships with broad segments of industry and academia. The implementation and execution of a viable T2 program also shall require applicable forms of marketing and outreach. The intent of marketing and outreach activities is to communicate, inform, or collaborate with stakeholders, in the T2 community.

6.10.1. The cost and expenses associated with establishing and operating a T2 Office or an ORTA shall come from the program element funds, overhead accounts, royalties or other payments, or other sources, as applicable, of the DoD Components. Subsection 3710(b) of 15 U.S.C. (reference (d)), requires that the DoD Components shall make available sufficient funding to support the T2 functions. An office (ORTA), that provides coordination, administration, and management of DoD T2, shall function at all DoD laboratories and/or technical activities with 200 or more scientific, engineering, or related technical positions regardless of individual laboratory and/or technical activity funding issues.

6.10.2. The heads of laboratories and/or technical activities shall develop procedures to provide support to mission-related T2 activities and shall ensure that T2 programs are adequately staffed and resourced. For example, program element funds may be used to pay the costs and expenses of initiation and negotiation of CRADAs and other agreements. Those procedures shall give particular attention to payment of salaries and travel expenses of scientific, engineering, and legal personnel and ORTA personnel involved in T2.

6.10.3. Marketing and outreach activities are part of the functions of the ORTA. The DoD Components are encouraged to utilize multiple means to conduct marketing and outreach programs, such as the following:

6.10.3.1. Advanced information technologies (including websites, search and/or retrieval tools, webcasting, and collaboration applications).

6.10.3.2. Personal and professional contacts.

6.10.3.3. Advertising.

6.10.3.4. Joint technical publications.

6.10.3.5. Requests for collaborations in the Commerce Business Daily.

6.10.3.6. Use of Advanced Planning Briefing for Industry.

6.10.3.7. Press releases for relevant industrial publications.

6.10.3.8. Use of the North American Industrial Classification System for targeted mailings to industry.

6.10.3.9. Education partnerships.

6.10.3.10. Symposia and conferences.

6.10.3.11. Alliances with local, regional, and U.S. T2 networks and organizations (i.e., State and local business development organizations).

6.10.4. Some DoD laboratories and/or technical activities have unique technical and other capabilities that may be of benefit to non-Federal organizations. It is applicable for laboratories and/or technical activities to advertise and demonstrate such capabilities to promote fee-for-service use. The Heads of the DoD Components and laboratory managers shall develop and implement policies to ensure that such advertising and use of laboratory facilities is consistent with U.S. and DoD policy for such matters. Particular attention shall be given to the objective of avoiding situations in which a DoD laboratory is competing with or providing services available from other domestic sources. Special emphasis shall be given to development



and implementation of policies to ensure that fee-for-service use of DoD facilities does not degrade performance of primary mission activities in the laboratories and/or technical activities.

6.11. Intermediaries affiliated with State or local governments may ease communication and understanding between defense laboratories and/or technical activities and non-Federal entities. Intermediaries normally conduct a number of functions for the laboratory that a laboratory cannot perform due to lack of skills or expertise. The goal of the intermediaries is to assist the laboratory in forming and maintaining productive technology partnerships. The DoD Components are encouraged to delegate authority, to the maximum extent possible, for entering into partnerships with intermediaries.

6.11.1. The intermediaries shall provide a number of services, including consulting services, strategic planning, military and commercial technology assessments, integration with Federal core research and/or focus and/or outreach areas, and technology marketing. They also may provide coordinated media and legislative interface and assistance with DoD conversion activities. One of their attributes is their ability to interface with small business and regional economies interested in commercializing Federal technology.

6.11.2. Intermediaries normally shall provide services to the affiliated defense lab and/or center typically under a contract, CRADA, educational partnership agreement, or memorandum of understanding and/or memorandum of agreement. Intermediaries may be professional societies; industry and trade associations; economic development associations; DoD conversion and/or technology development Agencies; academic institutions; State, regional, or local governments; and for-profit consultants and/or firms under competed procurement contracts. A specific type of intermediary, a "Federal Partnership Intermediary," is described in 15 U.S.C. 3715(c) (reference (d)). The DoD Components are encouraged to delegate authority for such decisions to the maximum extent possible.

6.12. Technology assessment is an important part of the T2 process. Technology assessments shall be conducted to determine the potential commercial value of a laboratory and/or the intellectual property of a technical activity. Technology assessment shall be a continuous process in DoD laboratories and/or technical activities to enable development of a portfolio of marketable technologies that may be used to respond to inquiries and unanticipated application opportunities defined by potential clients. Assessment includes identifying candidate products and/or processes and evaluating potential to validate feasibility, suitability, and marketability.

6.13. Besides intermediaries, use of consultants and contractors to support T2 activities by conducting assessments of marketing opportunities, applications, and technologies is among the mechanisms that the DoD Components may use to promote T2. That may involve contracts with for-profit or nonprofit organizations. It also may involve purchasing commercial products and services dealing with markets, applications, and technologies. Consideration shall be given to potential conflict-of-interest issues in making decisions on the use of consultants and contractors to perform assessments supporting T2.

6.14. Laboratories and/or technical activities may provide technical assistance services, including help by technical volunteers, to State and local governments, school systems, and nonprofit organizations. Those services may include problem analysis, assistance in the development and interpretation of technical information, hands-on technical help from laboratory volunteers, and limited projects in a laboratory where that does not compete with available services in the private sector. In making decisions on such technical assistance services, mission activities necessarily shall have first priority. It is applicable to consider U.S. and DoD policies that promote educational and technical activities. It is also applicable to give consideration to potential payoffs to the laboratory; e.g., the benefits for recruitment of technical staff that may be associated with providing technical assistance services to educational institutions

6.15. The Heads of the DoD laboratories and/or technical activities (see enclosure 2, definition E2.3.) may loan, lease, or give research equipment that is excess to the needs of the laboratory to an educational institution or nonprofit organization for the conduct of technical and scientific education and research activities. Title of ownership shall transfer to the recipient when the excess research equipment is transferred as a gift. Research equipment provided to a recipient under 15 U.S.C. 3710(i) (reference (d)) is not subject to existing Federal property disposal regulations implementing separate authorities. Federal laboratories and/or technical activities that transfer their excess research equipment directly to the recipient shall report the transfer to the General Services Administration (GSA). That is clarification of 15 U.S.C. 3710(i) (reference (d)) and E. O. 12999 (reference (h)) to allow laboratories and/or technical activities, Agencies, or Departments to give, loan, or lease excess research equipment to public and private schools and nonprofit institutions without the administrative burden of existing Federal property disposal laws. That is an alternative and free-standing method of distribution of excess research equipment. Under this E. O. (reference (h)), Federal laboratories and/or technical activities may donate their excess research equipment directly to the recipient or report excess research equipment to the GSA for transfer under existing Federal property disposal laws.

6.16. One objective of DoD T2 is to improve the domestic U.S. economy and standard of living. That does not mean that T2 may be accomplished only by working with U.S.-owned and U.S.-based companies. There may be situations in which working with a foreign organization, individual, or government R&D facility is the best way to accomplish the T2 goal. The foreign individual, organization, or government R&D facility may have the best technology for a given application, or a foreign company may provide for manufacture mostly in the United States.

6.16.1. It is DoD policy to allow foreign persons and organizations to be involved in DoD T2 transactions when it is in the judgment of the laboratory or other DoD Component personnel responsible for making such decisions, the best option for achieving their objectives, only if such foreign participation is consistent with U.S. and DoD policy. That is done without any intention of inhibiting such foreign participation; the goal, rather, is to ensure that actions are consistent with U.S. and DoD policy.

6.16.2. The Heads of the DoD Components shall consider the criteria in paragraph 6.16.3., below, when developing guidance for their laboratories and/or technical activities on U.S. and DoD policies impacting the participation of foreign individuals and organizations in T2

transactions. Such guidance shall be developed in forms that help decisionmaking in DoD laboratories and/or technical activities, which are not anticipated to have expertise in trade policy. That guidance shall encompass all of the types of T2 transactions and mechanisms addressed in this Instruction.

6.16.3. It is expected that criteria shall include special consideration such as the following:

6.16.3.1. Whether such foreign companies or governments shall permit and encourage U.S. Agencies, organizations, or persons to enter into cooperative R&D agreements and licensing arrangements on a comparable basis.

6.16.3.2. Whether those foreign governments shall have policies to protect U.S. intellectual property rights.

6.16.3.3. Where cooperative research shall involve data, technologies, or products subject to U.S. security export controls under the laws of the United States, whether those foreign governments have adopted adequate measures to prevent the transfer of strategic technology to destinations prohibited under such U.S. security export controls or by international agreements to which the United States and such foreign governments are signatories.

6.17. Guidance and factors to consider when using a CRADA:

6.17.1. CRADAs are agreements that allow one or more Federal laboratories and/or technical activities and one or more non-Federal parties to conduct specified R&D efforts that are related to and consistent with the mission of the DoD laboratory. CRADAs are instruments that may be used in all aspects of a product and/or system life cycle where RDT&E activities occur.

6.17.2. CRADAs are not subject to terms for procurement contracts and other instruments that are defined by 31 U.S.C. 6303-6305 (reference (i)), but they are contracts in the sense that are legally enforceable documents. CRADAs shall not be viewed as an alternative to normal procurement procedures.

6.17.3. Special consideration shall be given to small businesses or consortia involving small businesses.

6.17.4. Preference shall be given to businesses located in the United States or those that agree that products embodying inventions made under the CRADA or produced through the use of such inventions shall be manufactured substantially in the United States (consistent with subsection 6.16., above).

6.17.5. CRADAs shall contain provisions for a variety of intellectual property issues including data rights, property ownership, and the allocation of rights to future inventions and/or intellectual property.



6.17.6. DoD laboratories and/or technical activities may protect from public access certain commercially valuable information resulting from work under a CRADA for a period of up to 5 years. Doing so provides the collaborating entity sufficient time to capitalize on the inventions and/or intellectual property created under the CRADA.

6.17.7. DoD laboratories and/or technical activities may commit resources such as personnel, services, facilities, equipment, intellectual property or other resources with or without reimbursement, but shall not provide funds to the non-Federal partner as part of the agreement. Non-Federal parties may commit funds to the Federal partner to the agreement.

6.17.8. DoD laboratories and/or technical activities receiving funds under a CRADA shall maintain separate and distinct accounts, records, and other evidence supporting expenditures under the CRADA.

6.17.9. When licensing intellectual property under a CRADA, the DoD laboratory and/or activity shall retain a nonexclusive, nontransferable, irrevocable, and paid-up license for use by the Government.

6.17.10. The private non-Federal partner shall be given the option to choose an exclusive license for a prenegotiated field of use for any invention made in whole or part by a laboratory employee.

6.17.11. CRADAs shall be accomplished without actual or apparent personal or organizational conflicts of interest or violations of ethics standards.

## 7. INFORMATION REQUIREMENTS

7.1. The Defense Technical Information Center (DTIC) shall, under the direction of the DDR&E, develop, maintain, and operate databases to collect, store, and disseminate information about DoD T2 program activities. Elements or segments of those databases shall be accessible to applicable levels of DoD and external users (non-DoD activities) in a manner consistent with the constraints of the data, as specified in DoD Directive 5535.3, the Secretary of Defense Memorandum, and 15 U. S. C. (references (a), (j), and (d)). The DTIC shall develop, maintain, and operate those computer databases in support of DoD T2 policies and concepts with the coordinated and approved requirements of the DoD Components to include the following:

7.1.1. Preparation; coordination with the DoD Components; and issuance of uniform procedures, codes, data elements, and formats for submitting records to, and obtaining records from, the computer databases. The data elements and codes shall comply with DoD 8320.1-M-1 (reference (k)) or be developed, in accordance with DoD Directive 8320.1 (reference (l)).

7.1.2. Providing and operating a system for database input, output, access, and retrieval.

7.1.3. Providing to each of the DoD Components and activity focal points, a quarterly report that summarizes quantity and quality of input from the activities of that DoD Component.



A complete summary of those reports shall be provided to the ODDR&E (Technology Transfer Directorate).

7.1.4. Incorporation of applicable security requirements, in accordance with DoD 5200.28-M (reference (m)).

7.2. Other scientific and technical information needs may be addressed in DoD Directive 3200.12 and DoD Instruction 5230.27 (references (n) and (o)), and other policy issuances.

## 8. EFFECTIVE DATE

8.1. This Instruction is effective immediately.

A handwritten signature in black ink, appearing to read "Hans Mark". The signature is fluid and cursive, with a long horizontal stroke extending to the right.

Director, Defense Research and Engineering

Enclosures - 3

1. References
2. Definitions
3. Starting Point for Position Descriptions, Work Plans, and Performance Standards

E1. ENCLOSURE 1

REFERENCES, continued

- (e) Office of Management and Budget, Circular No. A-11, "Preparation and Submission of Budget Estimates," June 23, 1997
- (f) DoD 1400.25-M, "DoD Civilian Personnel Manual System," December 1996, authorized by DoD Directive 1400.25, "DoD Civilian Personnel Management System," November 26, 1996
- (g) Sections 2105 and 4504 of title 5, United States Code
- (h) Executive Order 12999, "Educational Technology: Ensuring Opportunity for All Children in the Next Century," April 17, 1996
- (i) Sections 6303-6305 of title 31, United States Code
- (j) Secretary of Defense Memorandum, "DoD Domestic Technology Transfer/Dual Use Technology Development," June 2, 1995
- (k) DoD 8320.1-M-1, "Data Element Standardization Procedures," January 1993, authorized by DoD Directive 8320.1, September 26, 1991
- (l) DoD Directive 8320.1, "DoD Data Administration," September 26, 1991
- (m) DoD 5200.28-M, "ADP Security Manual," January 1973, authorized by DoD Directive 5200.28, March 21, 1988
- (n) DoD Directive 3200.12, "DoD Scientific and Technical Information Program," February 15, 1983
- (o) DoD Instruction 5230.27, "Presentation of DoD-Related Scientific and Technical Papers at Meetings," October 6, 1987

E2. ENCLOSURE 2

DEFINITIONS

E2.1. Cooperative Research and Development Agreement (CRADA). An agreement between one or more federal laboratories and/or technical activities and one or more nonfederal parties. Under a CRADA, the government laboratories and/or technical activities shall provide personnel, services, facilities, equipment or other resources with or without reimbursement (but not funds to the nonfederal parties). CRADAs are instruments that may be used in all aspects of a product and/or system life cycle where RDT&E activities occur. The nonfederal parties shall provide funds, personnel, services, facilities, equipment or other resources toward the conduct of specified R&D efforts that are consistent with the missions of the laboratory. The CRADA partners shall share in the intellectual property developed under the effort. The terms of a CRADA may not conform to a procurement contract or cooperative agreement as those terms are used in Sections 6303- 6305 of 31 U.S.C. (reference (i)). Besides that definition, two types of CRADAs are, as follows:

E2.1.1. Technical Assistance CRADA. That allows a Federal laboratory and a non-Federal partner to work jointly to assist local businesses by providing limited (4 day maximum) free technical consulting. Preference is given to non-Federal partners that are State organizations, universities, non-profit entities, or business incubators that shall publicize availability of Federal assistance, receive and assess requests for cooperative research, ensure that the laboratory and/or technical activity shall not compete with private organizations, and coordinate work of the laboratory and/or technical activity with the requester companies. The laboratory and/or technical activity shall provide the required assistance and reports to the CRADA partner and the requester company. The requester company only shall provide a problem statement and sign a short 2-page "mini-CRADA" agreement, "subagreement," or "CRADA amendment."

E2.1.2. Military Use CRADA. A CRADA between a DoD laboratory and/or technical activity and an industrial partner to utilize existing unique capabilities and facilities at the DoD laboratory in a product or process intended primarily for DoD or other military use. Each participant recognizes that it cannot support the research alone nor duplicate existing research or facilities. The technology is incorporated in new DoD systems or products as well as in other commercial opportunities. Specific concerns to be addressed in each military use CRADA include the following:

E2.1.2.1. A CRADA may be the proper vehicle (work is not a contract).

E2.1.2.2. Government rights are maintained (not establishing a sole source).

E2.1.2.3. Equal opportunity shall be provided to other qualified companies

E2.1.2.4. The laboratory shall not compete with private sector.

E2.1.2.5. Preferably, the funds for the laboratory shall not go through industry.

E2.2 Federal Employee. That is defined in 5 U.S.C. 2105 (reference (g)).

E2.3. Laboratory and/or Technical Activity. For the Instruction, that term is, as broadly defined, in 15 U.S.C. 3710a(d)(2)(A) (reference (d)), and shall include the following:

E2.3.1. "A facility or group of facilities owned, leased, or otherwise used by a Federal Agency, a substantial purpose of which is the performance of research, development, or engineering by employees of the Federal Government."

E2.3.2. Use of this broad definition, in subdefinition E2.3.1., above, is deliberate. That definition is not confined to those DoD Components that are formally titled "laboratories." The intent of that definition is to encompass the wide range of organizations and arrangements that function as laboratories and/or technical activities in DoD research, development, and engineering programs. It shall include laboratories and/or technical activities and reference more diverse arrangements that shall provide a virtual laboratory capability. For example, a DoD Component may have a virtual lab involving a management function accomplished in a Defense Agency activity, plus a dispersed set of research activities to be accomplished by a variety of organizations outside of the sponsoring and/or managing activity. Those capabilities are included in test, logistics, and product centers; depots; arsenals; program offices; and all DoD offices providing for RDT&E. That is consistent with 15 U.S.C. 3710a(d)(2)(A) (reference (d)), which uses such encompassing terms as "facility." That broad definition is in accordance with new DoD practices.

E2.3.3. While the definition cited in Subsection 3710a(d)(2)(A) of reference (d) occurs in a Section of the U.S.C. dealing with CRADAs, the use of that broad definition in the Instruction (and DoD Directive 5535.3, reference (a)) shall not be limited to matters involving CRADAs. The broad definition applies to all citations of laboratories and/or technical activities in the Instruction and reference (a).

E2.4. Nonprofit Institution. That is an organization owned and operated exclusively for scientific or educational purposes, the net earnings of which shall not benefit any private shareholder or individual.

E2.5. Technical Assistance. Allows a Federal laboratory and a non-Federal partner to work jointly to assist local businesses by providing limited (up to 4-day maximum) free technical consulting. Preference shall be given to non-Federal partners that are State organizations, universities, or non-profit entities, including the FLC, which shall publicize availability of Federal assistance, ensure that the laboratory and/or technical activity shall not compete with private organizations, and coordinate the work of the laboratory and/or technical activity with the requester companies. The laboratory and/or technical activity shall provide the required assistance in the form of technical information, lessons, learned, problem solving, or further advice. At no time are technical assistance activities or technical assistance CRADAs to be used to accomplish R&D.



E2.6. Technology Transfer (T2). The intentional communication (sharing) of knowledge, expertise, facilities, equipment, and other resources for application to military and nonmilitary systems. Domestic T2 activities shall include the following:

E2.6.1. Spin-off activities that shall demonstrate DoD technology; e.g., commercial viability of technologies already developed or presently being developed for U.S. security purposes. The primary purpose of those activities, which encompass T2, shall be to promote and make available existing DoD-owned or -developed technologies and technical infrastructure to a broad spectrum of non-DoD applications.

E2.6.2. Dual-use science and technology and other activities that develop technologies that have both DoD and non-DoD applications.

E2.6.3 Spin-on promotion activities that shall demonstrate the U.S. security utility of technologies developed outside of the Department of Defense. That goal shall be to incorporate the innovative technology into military systems to meet mission needs at a lower acquisition cost by taking advantage of the economies of scale by purchasing from a larger industrial base.

### E3. ENCLOSURE 3

#### STARTING POINTS FOR DEVELOPMENT OF POSITION DESCRIPTIONS, WORK PLANS, AND PERFORMANCE STANDARDS

##### E3.1 POSITION DESCRIPTION

E3.1.1 Duties and Responsibilities. Transfers, where applicable, Federally owned or originated technology and technical capabilities to State and local governments and to the private sector. Develops technologies having both DoD and non-DoD applications. Promotes the use of technologies developed outside the Department of Defense.

##### E3.2. WORK PLAN

E3.2.1. Performance Element (Critical) T2. Assesses the availability and applicability of technologies and technical capabilities of their projects and programs. Transfers those technologies and technical capabilities to State and local government and the private sector in compliance with public laws and applicable DoD Directives, Instructions, and Regulations, and Component directives, instructions, and regulations. Obtains assistance from the local ORTA. Works with the T2 partner after formal agreements are in effect (CRADAs, cooperative agreements, other transactions, and patent license agreements, etc.).

E3.2.2. Dual Use Technology. That technology shall identify industrial technology requirements and shall take those requirements into consideration when developing in-house technology.

E3.2.3. Spin-on Technology. When seeking solutions to DoD requirements, shall consider technologies developed outside Department of Defense on an equal basis with those developed inside the Department of Defense.

##### E3.3 PERFORMANCE STANDARD

E3.3.1. T2. Performance is satisfactory when the incumbent shall demonstrate an active knowledge of the program requirements, take positive action to assess technologies and technical capabilities, and start actions to formally transfer those technologies and technical capabilities to State and local government and the private sector. The incumbent shall maintain an active working relationship with the local ORTA in developing, negotiating, and getting approval for T2 instruments (CRADAs, cooperative agreements and other transactions, patent license agreements, etc.). It actively shall work with the T2 partners to satisfy effectively the Component obligations in the T2 instruments.

E3.3.2. Dual Use Technology and Spin-on. Performance is satisfactory when the incumbent shall consider industrial requirements when developing in-house technologies and non-DoD technologies when seeking solutions to DoD requirements.

**6 FEBRUARY 2001**



***Scientific/Research and Development***  
**DOMESTIC TECHNOLOGY TRANSFER**

---

**NOTICE:** This publication is available digitally on the AFDPO WWW site at: <http://afpubs.hq.af.mil>.

---

OPR: SAF/AQR (Dr. Van Blackwood)  
Supersedes AFD 61-3, 29 July 1994.

Certified by: SAF/AQR (Dr. Donald C. Daniel)  
Pages: 6  
Distribution: F

---

***SUMMARY OF REVISIONS***

This entire Policy Directive was rewritten. The changes to this Policy Directive were required in order to align Air Force Policy more directly with newly issued DoD Policy on domestic technology transfer (DoD Directive 5535.3). This includes making Air Force Policy to enhance US competitiveness while leveraging DoD Research & Development investments, making technology transfer activities a priority in Air Force acquisition programs, listing more technology transfer mechanisms available for use, new reporting requirements, and making technology transfer a responsibility for science and engineering professionals.

**1.** Technology transfer activities are integral elements of the Air Force's pursuit of its national security mission and concurrently these activities improve the economical, environmental, and societal well being of the citizens of the United States of America. These activities enhance the economic competitiveness of industry and promote the productivity of state and local governments while leveraging the Department of Defense (DoD) Research and Development (R&D) investment. This will result in a strong industrial base that the Air Force and the DoD can utilize to supply its needs. These activities must have a priority role in all Air Force acquisition programs and must be recognized as a key activity of the Air Force mission.

**2.** It is Air Force policy that all Air Force organizations promote the transfer or exchange of technology with state and local governments and the private sector in accordance with applicable public laws, DoD Directives and Instructions, and Air Force instructions and handbooks. The technology transfer program includes spin-off, dual use, and spin-on activities that make the best possible use of national scientific and technical capabilities to enhance the effectiveness of DoD forces and systems.

2.1. The Air Force transfers or exchanges technology permitting the public and private sectors to benefit from the use of Air Force facilities, personnel, and resources. Transfer mechanisms include Cooperative Research and Development Agreements (CRADAs), Commercial Test Agreements (CTAs), patent licenses or assignments, Education Partnership Agreements (EPAs), grants, Cooperative

Agreements and Other Transactions, and Small Business Innovation Research awards, and other agreements.

2.2. All Air Force activities engaged in technology transfer shall report all management information required by the Director of Defense Research and Engineering (DDR&E) in accordance with DoD instructions. This information shall include, but not be limited to, Defense Technology Transfer Information System (DTTIS), annual business plans, and technical and programmatic information.

2.3. Technology Transfer is a responsibility of all Air Force science and engineering professionals working in Air Force laboratories and/or technical activities. Each Air Force laboratory and/or technical activity will establish a Technology Transfer Focal Point who manages the local transfer program and participates on the Air Force Technology Transfer Integrated Planning Team.

2.4. The Air Force promotes domestic technology transfer by protecting inventions and other intellectual property arising from Federally supported R&D through United States and foreign patenting and patent licensing.

3. See attachment 1 for references and supporting information.
4. See attachment 2 for measures used to comply with this policy.

F. WHITTEN PETERS  
Secretary of the Air Force



## **GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION**

### ***References***

Public Law 96-480, *The Stevenson-Wydler Technology Innovation Act of 1980 as amended*  
Public Law 99-502, *Federal Technology Transfer Act of 1986*  
Executive Order 12591, *Facilitating Access to Science and Technology*, 10 April 1987  
DoD Directive 5535.3, *Department of Defense Technology Transfer Program*, 21 May 1999  
DoD Instruction 5535.8, *DoD Technology Transfer (T2) Program*, 14 May 1999  
10 U.S.C. 2194, *The Educational Partnership Act*, 5 January 1999  
10 U.S.C. 2539b, *Authority to Sell*, 5 January 1999  
15 U.S.C. 3710, *Utilization of Federal Technology*, 5 January 1999  
AFPD 51-3, *Civil Litigation*, 21 May 1993  
AFPD 61-2, *Management of Scientific and Technical Information*, 7 April 1993  
AFI 51-303, *Intellectual property - Patents, Patent Related Matters, Trademarks, Copyrights*, 1 September 1998  
AFI 61-301, *The Domestic Technology Transfer Process and the Offices of Research and Technology Applications*  
AFI 61-302, *Cooperative Research and Development Agreements*

### ***Abbreviations and Acronyms***

**AFI**—Air Force Instruction  
**AFPD**—Air Force Policy Directive  
**CRADA**—Cooperative Research and Development Agreement  
**CTA**—Commercial Test Agreement  
**DDR&E**—Director Defense Research and Engineering  
**DTTIS**—Domestic Technology Transfer Information System  
**EPA**—Education Partnership Agreement  
**OPR**—Office of Primary Responsibility  
**ORTA**—Office of Research and Technology Applications  
**R&D**—Research and Development  
**SAF/AQR**—The Office of the Deputy Assistant Secretary for Acquisition (Science, Technology and Engineering)

**Terms**

**Air Force Program Management Team**—The Air Force Office (the Air Force Technology Transfer Program Manager and his or her staff) responsible for implementing this policy directive and its instructions.

**Air Force Technology Transfer Integrated Planning Team**—This is a working level group whose membership includes all Air Force Technology Transfer Focal Points, each participating command's Technology Transfer Manager, the Air Force Program Management Team, and various support personnel (including, but not limited to, legal, public affairs, financial management, contracting, etc.) The group meets regularly and works together to resolve common problems, share best practices and lessons learned, and initiate program and process improvements.

**Cooperative Research and Development Agreement (CRADA)**—An agreement between one or more federal laboratories and/or technical activities and one or more nonfederal parties. Under a CRADA, the government laboratories and/or technical activities shall provide personnel, services, facilities, equipment, or other resources with or without reimbursement (but not funds to the nonfederal parties). CRADAs are instruments that may be used in all aspects of a product and/or system life cycle where RDT&E activities occur. The nonfederal parties shall provide funds, personnel, services, facilities, equipment, or other resources toward the conduct of specified research and development efforts that are consistent with the missions of the laboratory and/or technical activity. The CRADA partners shall share in the intellectual property developed under the effort. This term does not include a procurement contract or cooperative agreement as used in 31 U.S.C. §§ 6303, 6304, and 6305.

**Education Partnership Agreement (EPA)**—An agreement under 10 U.S.C. § 2194 between educational institutions and an Air Force scientific and engineering activity(ies) for the purpose of encouraging and enhancing study in scientific disciplines at all levels of education. The educational institutions referred to in the preceding sentence are local educational agency [agencies], colleges, universities, and any other nonprofit institutions that are dedicated to improving science, mathematics, and engineering education. Under such a partnership agreement, the director of an Air Force scientific and engineering activity may provide assistance to the educational institution by-- (1) loaning defense laboratory equipment to the institution; (2) transferring to the institution defense laboratory equipment determined by the director to be surplus; (3) making laboratory personnel available to teach science courses or to assist in the development of science courses and materials for the institution; (4) involving faculty and students of the institution in defense laboratory research projects; (5) cooperating with the institution in developing a program under which students may be given academic credit for work on defense laboratory research projects; and (6) providing academic and career advice and assistance to students of the institution.

**Laboratory and/or Technical Activity**—For this Policy Directive, that phrase is, as broadly defined, in 15 U.S.C. 3710a(d)(2)(A), and shall include the following:

A facility or group of facilities owned, leased, or otherwise used by the Air Force, a substantial purpose of which is the performance of research, development, or engineering by employees of the Air Force.

Use of this broad definition is deliberate. That definition is not confined to those Air Force components that are formally titled "laboratories." The intent of that definition is to encompass the wide range of organizations and arrangements that function as laboratories and/or technical activities in Air Force research, development, and engineering programs. It shall include laboratories and/or technical activities and reference more diverse arrangements that shall provide a virtual laboratory capability. For example, an Air

Force component may have a virtual lab involving a management function accomplished in an Air Force activity, plus a dispersed set of research activities to be accomplished by a variety of organizations outside of the sponsoring and/or managing activity. Those capabilities are included in test, logistics, and product centers; depots; arsenals; program offices; and all Air Force offices providing for RDT&E. This is consistent with 15 U.S.C. 3710a(d)(2)(A) which uses such encompassing terms as “facility.” This broad definition is in accordance with new DoD practices.

While the definition cited in 15 U.S.C. 3710a(d)(2)(A) occurs in a section of the United States Code dealing with CRADAs, the use of that broad definition in the DoD Directive 5535.3 and DoD Instruction 5535.8 shall not be limited to matters involving CRADAs. The broad definition applies to all citations of laboratories and/or technical activities in this Policy Directive.

**Office of Research and Technology Applications (ORTA)** —Office required by 15 U.S.C. § 3710(b) to oversee the *Domestic Technology Transfer Program* at a laboratory and/or technical activity. Normally, an ORTA comprises individuals with expertise in marketing, public relations, intellectual property, patent law, and scientific and technical information.

**Technology Transfer** —The communication (sharing) of knowledge, expertise, facilities, equipment, and other resources, for application to military and non-military systems. Domestic technology transfer shall include the following:

Spin-off activities that shall demonstrate DoD technology; e.g., commercial viability of technologies already developed or presently being developed for U.S. security purposes. The primary purpose of those activities, which encompass much technology transfer, shall be to promote and make available existing DoD-owned or -developed technologies and technical infrastructure to a broad spectrum of non-DoD applications.

Dual-use science and technology and other activities that develop technologies that shall have both DoD and non-DoD applications.

Spin-on promotion activities that shall demonstrate the U.S. security utility of technologies developed outside of the DoD. That goal shall be to incorporate the innovative technology into military systems to meet mission needs at a lower acquisition cost by taking advantage of the economies of scale by purchasing from a larger industrial base.

## **MEASURING COMPLIANCE WITH POLICY**

**A2.1.** The Air Force measures compliance with this directive by reviewing data reported by the Offices of Research and Technology Applications (ORTA) and other Technology Transfer Focal Points and by comparing results with goals developed in Air Force activity's annual business plan. Items referenced in the Air Force Technology Transfer Handbook dealing with performance measures will be used

([http://www.afrl.af.mil/techtran/handbk/index\\_nofrm.htm](http://www.afrl.af.mil/techtran/handbk/index_nofrm.htm))



**30 MAY 2001**



**Scientific/Research and Development**

**THE DOMESTIC TECHNOLOGY TRANSFER  
PROCESS AND THE OFFICES OF RESEARCH  
AND TECHNOLOGY APPLICATIONS**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

---

**NOTICE:** This publication is available digitally on the AFDPO WWW site at:  
<http://afpubs.hq.af.mil>

---

OPR: SAF/AQR  
(Dr. Van Blackwood)  
Supersedes AFI 61-301 25 July 1994

Certified by: SAF/AQR  
(Dr. Donald C. Daniel)  
Pages: 14  
Distribution: F

---

Air Force Instruction (AFI) 61-301 establishes policies and procedures for the domestic technology transfer (DTT) process and the Offices of Research and Technology Applications (ORTAs). The instruction implements several publications: Air Force Policy Directive (AFPD) 61-3, *Domestic Technology Transfer*; United States Code Title 15 Commerce and Trade Chapter 63 Technology Innovation Section 3701 (15 USC 3701 et seq.); Executive Order 12591, *Facilitating Access to Science and Technology*, 10 April 1987; Department of Defense (DoD) Directive 5535.3, *DoD Domestic Technology Transfer Program*, May 21, 1999; and DoD Instruction 5535.8, *DoD Technology Transfer (T2) Program*, May 14, 1999. Maintain and dispose of records created as a result of prescribed processes in accordance with AFMAN 37-139, *Records Disposition Schedule*.

**SUMMARY OF REVISIONS**

This instruction updates, clarifies, and streamlines previous guidance in accordance with DoD Directive 5535.3 and DoD Instruction 5535.8. Moreover, this instruction reflects the realignment of duties and office symbol changes as well as correctly delineates the responsibilities of the various legal offices. These changes are reflected in sections 1 and 4. The changes to section 2 now accurately reflect what types of agreements the laboratory commanders or directors have the authority to sign and more accurately describes their responsibilities for the technology transfer mission. Section 3 clearly delineates the ORTAs roles and responsibilities. Section 5 reflects the changes to the Stevenson-Wydler Technology Innovation Act and the responsibilities of various offices to handle royalty payments. Section 8 reflects the current Air Force instruction for awards. A new section 9 was added to accurately reflect that donations and loans of various laboratory equipment can be made directly to educational institutions and non-profit organizations.

## 1. SAF/AQR Responsibilities.

1.1. SAF/AQR is the Department of Air Force Office of Primary Responsibility (OPR) for the Air Force DTT program. The Technology Executive Officer (TEO), Commander, Air Force Research Laboratory, is assigned program management responsibility.

1.2. The authority to review and approve all Cooperative Research and Development Agreements (CRADAs) entered into by all laboratories and/or technical activities is delegated to the TEO. This authority may be redelegated to the commanders and directors of laboratories and/or technical activities.

1.3. The TEO appoints an Air Force Technology Transfer Program Manager, who:

1.3.1. Is the single focal point for the Air Force Technology Transfer program.

1.3.2. Is the Agency representative to the Director, Defense Research and Engineering (DDR&E) Technology Transfer Working Group.

1.3.3. Provides information to the Office of the Secretary of Defense, the General Accounting Office, and the Department of Commerce as required.

1.3.4. Establishes the Air Force Technology Transfer Program Management Team.

1.3.5. Manages the Air Force Technology Transfer Integrated Planning Team.

1.3.6. Is the Air Force representative to the Federal Laboratory Consortium.

1.3.7. Maintains the Air Force Technology Transfer Handbook.

1.3.8. Maintains the Air Force Technology Transfer web site.

## 2. Commander or Director Responsibilities. Commanders or Directors of all laboratories and/or technical activities shall:

2.1. Have the signatory authority to enter into CRADAs. The signatory authority also has the authority to negotiate and enter into licenses and assignments of intellectual property made under CRADAs. Their signatory authority may only be redelegated to the next lower level management when the TEO has redelegated the reviewing official authority to the commander or director. The reviewing official's authority may not be further redelegated.

2.2. Have the authority to enter into Education Partnership Agreements (EPAs) pursuant to 10 U.S.C. § 2194.

2.3. Have the authority to enter into Cooperative Work-Education Agreements pursuant to 10 U.S.C. § 2195.

2.4. Pursuant to Interim Draft DoD Guidance Implementing 10 U.S.C. § 2539b, "Authority to Sell," dated April 17, 1997 and pursuant to DoD Directive 5535.3, May 21, 1999, have the authority to enter into Commercial Test Agreements (CTAs).

2.5. Appoint the Technology Transfer Focal Point, and establish an Office of Research and Technology Applications (ORTA) in accordance with 15 U.S.C. § 3710(b), including adequately funding the cost and expenses associated with operating ORTAs using program element funds, overhead accounts, royalties, or other payments or sources of either appropriated or nonappropriated funding.

- 2.6. Support and encourage the active participation of their ORTA staffs in various networking opportunities to include: the Air Force Technology Transfer Integrated Planning Team, the DoD Technology Transfer Integrated Planning Team, and the Federal Laboratory Consortium for Technology Transfer (FLC).
- 2.7. Support and encourage the technology transfer program and provide opportunity for scientists and engineers to transfer Air Force technology, expertise, processes, and services to the public and private sector.
- 2.8. As authorized, enter into Cooperative Research and Development Agreements (CRADAs), patent licenses, Commercial Test Agreements (CTAs), Education Partnership Agreements (EPAs), and other types of technology transfer agreements with public and private sector organizations.
- 2.9. Whenever possible, support the commercialization of Air Force technology by licensing, assigning, or waiving rights to intellectual property.
- 2.10. Have the authority to direct contracting officers to enter into appropriate Partnership Intermediary Agreements (PIAs) pursuant to 15 U.S.C. § 3715.
- 2.11. Support participation in technology transfer activities, including participation in economic development organizations, and participation with other technology transfer networks, including state and local governments.
- 2.12. Provide technical assistance, including help by technical volunteers, to state and local governments and local educational institutions.
- 2.13. Support and encourage, where feasible, the exchange of scientific and technical personnel among academic, industrial, and federal activities and state and local governments.
- 2.14. Allow conduct of technology transfer with foreign (non-domestic) persons, industrial organizations, or government activities in accordance with export control policies. However consideration should be given to whether or not such persons or industrial organization's government allows similar relationships and whether such activities benefit the U.S. industrial base (E.O. 12591). All non-domestic partners must receive prior approval (in accordance with the approval process contained in the current Air Force Technology Transfer Handbook) before formal CRADA negotiations of the transfer can commence.
- 2.15. Ensure that technology transfer is not used to circumvent acquisition laws and regulations. Ensure that transfers are accomplished without actual or apparent personal or organizational conflicts of interest or violations of ethics standards and are in accordance with applicable legislation. Ensure that technology transfer activities will not constitute undue competition with the private sector.
- 2.16. Execute a technology transfer education and training program for personnel of all levels who are involved in any phase of technology transfer either directly or indirectly.
- 2.17. Establish a local technology transfer awards program, that may include cash awards, to recognize transfer accomplishments by any present or past, civilian or military Air Force employee responsible for a significant achievement in technology transfer to industry, state or local government, or academia.
- 2.18. Include the ORTA staff in the activity's management development program in order to ensure that highly competent technical managers fully participate in the technology transfer process. (15 U.S.C. § 3710b).

2.19. Make DTT a high-priority element of their S&T programs by including it in their investment strategy process.

2.20. Prepare a DTT business plan in accordance with the requirements in the Air Force Technology Transfer Handbook.

2.21. Have the authority to loan, lease or give research equipment that is excess to the needs of their activity to an educational institution or nonprofit organization for the conduct of technical and scientific, education and research activities. Guidance contained in AFI 33-112 must be followed.

**3. ORTA Responsibilities.** The Technology Transfer Focal Point in each ORTA shall:

3.1. Manage the activity's technology transfer program.

3.2. Establish their local technology transfer process in accordance with the guidance in the current Air Force Technology Transfer Handbook. Help program managers and technical department heads identify technologies suitable for transfer.

3.3. Actively participate in the Air Force and DoD Technology Transfer Integrated Planning Teams and the FLC for Technology Transfer.

3.4. Coordinate technology transfer activities with the servicing legal office to determine rights to inventions, patent and licensing implications, and the commercial potential of patentable technology.

3.5. Negotiate and provide for appropriate coordination of all patent license agreements or assignments in accordance with AFI 51-303 and AFI 61-302.

3.6. Collect, maintain, and report all data elements required for the management of technology transfer. This includes, but is not limited to, Defense Technology Transfer Information System, and other data elements as called out in the current Air Force Technology Transfer Handbook. Maintain working files, documents, and records of all transfer agreements.

3.7. Actively maintain an Internet web site that contains items such as transfer success stories, technical capabilities and points of contact. The web site must meet the requirements of the Air Force and the Department of Defense for content and accessibility restrictions, if any.

3.8. Maintain and report annual technology transfer business plans in accordance with the current Air Force Technology Transfer Handbook.

3.9. Prepare technology application assessments, in accordance with the Air Force Technology Transfer Handbook, of selected scientific and engineering projects that may have commercial potential.

3.10. Provide and disseminate information on federally owned or originated products, processes, services, and facilities that may be useful to state and local government and to private industry, including providing a list of the most commercially viable inventions, patent applications, and/or patents available for licensing to SAF/GCQ for publication in the Federal Register. Activities may pay for technology transfer related promotions in technical, professional, or trade journals.

3.11. Cooperate with and help the Defense Technical Information Center, the National Technical Information Service, the FLC, the National Technology Transfer Center, and other organizations that can link the activity to potential users in state and local governments and private industry.



- 3.12. Take part, when possible, in regional, state, and local programs that facilitate or stimulate technology transfer that benefits the region, state, or locality.
- 3.13. Take part in public and private sector activities that provide opportunities for technology transfer. This includes local government meetings, small business conferences, and local economic development organizations.
- 3.14. Not knowingly perform technology transfer functions that substantially compete with private sector services.
- 3.15. Comply with export control regulations, policies governing militarily critical technology, and other procedures and controls in Air Force directives and instructions.
- 3.16. Promote technical volunteer programs and participation by technical experts as a resource complementing and supporting technology transfer in regions, states, and local communities by working with primary and secondary schools, and by providing technical consulting to state and local governments.
- 3.17. Provide coordination with small and disadvantaged business utilization specialists to transfer technologies with commercial potential to these businesses.
- 3.18. Provide transfer expertise to scientific, engineering and technical personnel on all technology transfer mechanisms referenced in this instruction.
- 3.19. Provide a process for managing technology transfer spin-on and dual-use program opportunities.

#### **4. Legal Offices' Responsibilities.**

- 4.1. The Office of the General Counsel (SAF/GC) is generally responsible for the direction, control and coordination of inventions, patents, copyrights, trademarks, and trade secrets. Further, SAF/GC is responsible for managing the legal aspects of the Air Force patent licensing program and is responsible for the legal aspects of implementing the Technology Transfer program.
- 4.2. The Office of the Deputy General Counsel (Acquisition), SAF/GCQ, advises and assists all Secretariat Offices, including program executive offices, and establishes Air Force policy on all legal issues concerning technology transfer; interfaces with other Governmental agencies and/or branches of the Government on legal issues concerning technology transfer; provides guidance and advice to the Major Command legal offices and the servicing legal offices concerning the DTT program, including CRADAs, CTAs, EPAs, Cooperative Work-Education Agreements, PIAs, and intellectual property rights; and administers all patent license and assignment agreements including receiving and dispersing royalties or other payments.
- 4.3. SAF/GCQ and/or the local servicing patent counsel, as appropriate, shall provide SAF/AQR, the Air Force TEO, the Technology Transfer Program Manager, and ORTAs any requested legal analysis of and status reports concerning invention disclosures, patent applications, patents pending, patents issued (and their maintenance fee status), and patent licensing agreements under negotiation.
- 4.4. The Major Command and servicing legal offices advise and assist commanders or directors of Air Force activities and other Air Force personnel on all legal issues regarding technology transfer. Such advice and assistance may include, but is not limited to:
  - 4.4.1. Practical recommendations for structuring business relationships.

4.4.2. Drafting clauses to protect the Government's interest in matters such as Government furnished property, tort liability, or intellectual property including inventions, patents, copyrights and data rights.

4.4.3. Participating in negotiations to finalize complete agreements.

4.4.4. Reviewing all CRADAs and other transfer agreements, as well as supporting documentation for legal sufficiency.

4.4.5. Reviewing all potential conflicts of interest involving Air Force employees associated with CRADAs and other transfer agreements.

4.4.6. Helping personnel identify and report patentable inventions.

4.4.7. Rendering patentability and other opinions on intellectual property.

4.4.8. Preparing and filing patent applications and securing issuance of patents.

4.4.9. Preparing and negotiating patent licenses, assignments, and software release agreements.

4.4.10. Recording assignments and other property interests in inventions.

4.5. HQ USAF/JAG shall help assist the servicing legal office resolve potential conflicts of interest. This assistance includes, but is not limited to cases where present or former Federal employees or their partners negotiate CRADAs, licenses, or assignments of titles to inventions.

**5. Royalties.** The Air Force retains royalties or other income it receives from the licensing or assignment of inventions under CRADAs or from inventions licensed under 35 U.S.C. § 207 or other legal provisions. Such income is then disbursed to individual inventor(s) and to the Air Force activity sponsoring the inventions.

5.1. Any royalties or other payments received by the Air Force from licensing or assigning an invention under agreements entered into by Air Force laboratories and/or technical activities under 15 U.S.C. § 3710a or from licensing an invention under 35 U.S.C. § 207, or under any other provision of law, shall be forwarded to SAF/GCQ as a central point of contact. SAF/GCQ will forward the royalty or other payment to the appropriate Defense Finance and Accounting Service (DFAS) office with instructions as to how to disburse the royalties or other payments.

5.2. The inventor or each co-inventor shall be paid each year the first \$2,000 plus equal shares of at least 20 percent of the remainder of the royalties or other payments pursuant to 15 U.S.C. §3710c, as implemented by DoDI 5535.8, paragraph 6.9. In the absence of extrinsic evidence that co-inventors made unequal contributions to the invention, subject to review and approval by SAF/GCQ, it shall be presumed that the co-inventors made equal contributions to the invention and are entitled to equal shares of the 20 percent of the royalties or other payments. If the royalties or other payments received in any given year are less than or equal to \$2,000, or in the case of co-inventors, less than or equal to \$2,000 times the number of inventors, the entire amount is paid to the inventor, or in the case of co-inventors, the entire amount is divided equally among the co-inventors.

5.3. The inventor or co-inventors shall receive their prescribed share of any royalties or other payments as received by the Air Force on an annualized basis. Royalties or other payments from inventions to any one person shall not exceed \$150,000 per year without Presidential approval as provided in 5 U.S.C. § 4504. Any inventor whose whereabouts cannot be established within one year from mailing of the first correspondence concerning a royalty payment for any given year to his or her last

known address shall be presumed to be unknown. Any payments as set forth above and any excess royalties not disbursed will be disbursed to and retained by the laboratory and/or technical activity responsible for the licensed (or assigned) invention, until the inventor can be found or until the period referenced in 5.5.2. At which time, such royalties will be paid to the Treasury.

5.4. Any Air Force laboratory and/or technical activity may provide appropriate incentives from royalties or other payments to Air Force employees who are not inventors or co-inventors of inventions but who substantially increase the technical value of such inventions. When the incentive is in the form of a monetary payment, such payments may be at any level subject to the approval of the Air Force component or laboratory providing the incentive, but such payments shall not exceed the limits established above. Payments may be on a one-time or annual basis, and they shall cease when the employee is no longer employed by the Air Force.

5.5. The balance of the royalties or other payments will go to the activity where the invention occurred, and the funds so transferred to any such activity must be used or obligated by the end of the second fiscal year succeeding the fiscal year in which the royalties and other payments were received. The balance of the royalties or other payments may be used for:

- Payment of expenses for administration and licensing inventions and other intellectual property;
- Other activities of the Air Force that increase the licensing potential for transfer of Department of Defense technology;
- Scientific research and development within the research and development mission and objectives of the activity;
- Rewarding scientific, engineering, and technical employees;
- Promotion of scientific exchange among other Air Force and Department of Defense activities; and/or
- Education and training of employees consistent with the research and development mission and objectives of the Department of Defense.

5.5.1. The commander or director of the laboratory and/or technical activity may use a portion of the royalties to reward Federal employees who develop valuable inventions that cannot be commercialized for national security reasons or because they are useful only within DoD's mission. The commander or director may present these awards annually or more often. Written justification must support the award, such as:

5.5.1.1. A patent, a notice of allowability under the Patent Secrecy Act, or a Statutory Invention Registration.

5.5.1.2. A description of the invention's economic benefits to the Air Force or DOD or an assessment of its market potential.

5.5.2. Any royalties not obligated and expended by the end of the second fiscal year succeeding the fiscal year in which they are received go to the Treasury of the United States. If, after paying inventors, royalties received in a fiscal year exceed 5 percent of the Air Force activity's combined budgets for that year, 75 percent of the excess goes to the Treasury of the United States. The Air Force may spend the other 25 percent for, or obligate it for, the purposes described in paragraph 5.5. during that or the next fiscal year.

5.5.3. Any payment a Federal employee receives under this instruction is in addition to the employee's regular pay or any other awards the employee receives.

5.5.4. The payment does not affect the employee's entitlement to regular pay, annuity, or awards to which he or she is otherwise entitled or eligible, or limit any such amount of pay, annuity, or award.

5.5.5. Any payments an inventor periodically receives (royalties, for example) shall continue after the inventor leaves the activity or agency or after the inventor is deceased. Any such payments after the inventor is deceased shall be made to the inventor's estate.

**6. Certain Assignments.** If a contractor, grantee, or participant in an agreement or other arrangement with an Air Force activity assigns to the United States rights to an invention that generates royalty or other income, then the Air Force activity may distribute the royalties per paragraph 5. If an Air Force employee not working for a laboratory and/or technical activity assigns to the United States rights to an invention, the Air Force activity where the invention occurred and the inventor shall receive any royalties in accordance with paragraph 5.

**7. Reports.** Air Force activities provide data in accordance with the Air Force Technology Transfer Handbook to the Technology Transfer Program Management Team on the progress of technology transfer. The Air Force uses this information to report to the Office of the Secretary of Defense, the Department of Commerce, and the Government Accounting Office and others as necessary.

**8. Other Awards.** Air Force activities use existing authority, including AFI 38-401 and 15 U.S.C. § 3710b, to award cash to Federal employees for:

8.1. Inventions, innovations, or other outstanding scientific or technological contributions of value to the United States. ("Value" depends on the likelihood of commercial application or contribution to the Air Force's or Federal Government's mission.)

8.2. Exemplary activities promoting the transfer of science and technology developed within the Federal Government and used by American industry or business, universities, state or local governments, or other non-Federal parties including those activities recognized by FLC awards and the Ronald W. Yates Award for Technology Transfer and other similar awards.

**9. Donations and Loans of Research/Defense Laboratory Equipment.** Air Force Laboratories and/or technical activities may directly donate or loan laboratory equipment to public and private schools and nonprofit institutions pursuant to 15 U.S.C. §3710(i) or 10 U.S.C. §2194 or provide personal property to collaborating parties under a CRADA pursuant to 15 U.S.C. §3710a.

9.1. Under an educational partnership (or other) agreement, and consistent with the applicable statutes, 10 U.S.C. §2194 and 15 U.S.C. §3710(i), the director of an Air Force laboratory may directly transfer (donate) laboratory equipment that is surplus/excess to the needs of that laboratory, to public and private schools and nonprofit institutions located, and using such equipment, within the territorial limits of the United States. Determinations of property suitable for donation shall be made by the head of the laboratory. Title of ownership shall transfer as with gift under this section. Laboratory equipment donated to a recipient under 15 U.S.C. §3710(i) or 10 U.S.C. §2194 is not subject to existing Federal Property disposal regulations implementing separate authorities.



9.1.1. For purposes of this instruction, "laboratory equipment" means equipment that is or could be used for scientific or scholarly investigation. This includes, but is not limited to, federal property that is useful in either an applied or theoretical fashion for the demonstration, performance, or instruction of science, mathematics, engineering, or technology principles or practice at all levels. Laboratory equipment may be rather specialized, but also includes desktop computers and other equipment designed for more general applications.

9.1.2. To ensure an Air Force laboratory is not donating equipment at one DoD location and purchasing the same equipment at another DoD location, property should be screened in accordance with DoD policy. The Technology Transfer Handbook maintained by AFRL/XPTT shall contain the latest policy.

9.1.3. This donation authority shall not be used as a method of "dumping" excess property or as an alternative to authorized reduction to scrap. Property targeted for donation should be in working condition. However, at the request of the donee, inoperable property may be donated.

9.1.4. Donated laboratory equipment should generally be free of charge. However, the donee may be required to pay all costs associated with packing and transportation.

9.1.5. Laboratories and technical activities should be acutely aware that some property, if exported, may be environmentally regulated and/or, if exported, may require a U.S. Department of State or Commerce export license. Moreover, some property may require demilitarization or alteration for security purposes; standard eligibility criteria must be ensured and a screening process for determining trade security control risks is mandatory. Accordingly, all laboratory equipment to be donated must be screened to ensure compliance with DoD demilitarization requirements, security requirements and all environmental laws and regulations.

9.1.6. All donations pursuant to 10 U.S.C. 2194 and 15 U.S.C. 3710(i) shall be reported in accordance with DoD reporting requirements. The current reporting requirements shall be identified in the Technology Transfer Handbook maintained by AFRL/XPTT.

9.1.7. For those donations of "Educationally Useful Federal Equipment," to "schools" pursuant to Executive Order 12999, laboratories should use existing local procedures or if none are in place, use the procedures listed above.

9.2. Pursuant to 15 U.S.C. §3710(i), the Director of a laboratory or the head of any federal agency or department may loan or lease research equipment that is excess to the needs of the laboratory, agency, or department to an educational institution or nonprofit organization for the conduct of technical and scientific education and research activities. Pursuant to 15 U.S.C. §3710a, a laboratory director may provide property (equipment), including access to supplies and services to maintain such property, to collaborating party under a Cooperative Research and Development Agreement. Pursuant to 10 U.S.C. §2194, a laboratory director may loan defense laboratory equipment to an Education Institution pursuant to an Education Partnership Agreement.

9.2.1. For purposes of this guidance, the terms loan, lease or provide shall be used synonymously and shall refer to providing either research or laboratory equipment on an exclusive, but time limited, basis to an authorized recipient.

9.2.2. Laboratory and/or technical activity directors must only loan equipment to authorized recipients for the purposes authorized under the subject authorities. These are loans of:

9.2.2.1. Excess research equipment to educational institutions or nonprofit organizations for

the conduct of technical and scientific education and research activities;

9.2.2.2. Property (equipment) to collaborating parties under a Cooperative Research and Development Agreement for the conduct of specified research and development efforts which are consistent with the missions of the laboratory; and

9.2.2.3. Defense laboratory equipment to local educational agency, colleges, universities, and any other nonprofit institutions that are dedicated to improving science, mathematics, and engineering education under an Education Partnership Agreement for the purpose of encouraging and enhancing study in scientific disciplines at all levels of education.

9.2.3. All loans must be in writing and sufficiently identify the property loaned.

9.2.4. The terms of the loan can be set forth either in the terms of the authorized agreement (Cooperative Research and Development Agreement or Education Partnership Agreement), an attachment thereto, or in a separate agreement. The written agreements should include terms to sufficiently protect the DoD's interest in the property. For example, the agreements should include terms such as termination provisions, a duration provision, and/or a liability disclaimer. Laboratory directors should also consider including the requirement that the recipient obtain appropriate insurance coverage and/or other provisions that will insulate the DoD from liabilities stemming from the recipient's use of the loaned property.

9.2.5. Loans pursuant to a Cooperative Research and Development Agreement may be for a fee or free of charge. Loans pursuant to 15 U.S.C. §3710(i) and 10 U.S.C. §2194 should be free of charge. However, the recipient may be required to pay all costs associated with packing and transportation.

9.2.6. All equipment to be loaned must be screened to ensure compliance with DoD demilitarization requirements.

9.2.7. All equipment to be loaned must be screened to ensure compliance with all environmental laws and regulations.

9.2.8. For any equipment which will be loaned and otherwise requires sustainment support, laboratory personnel and local logistics personnel shall establish procedures to provide such support for the loaned equipment, if necessary.

DARLEEN A. DRUYUN  
Principal Deputy Assistant Secretary  
(Acquisition & Management)

**Attachment 1**

**GLOSSARY OF REFERENCES AND SUPPORTING INFORMATION**

***References***

United States Code Title 15 Commerce and Trade Chapter 63 Technology Innovation Section 3701 (15 USC 3701 et seq.)

Executive Order 12591, *Facilitating Access to Science and Technology*, 10 April 1987

DoDD 5535.3, *Technology Transfer Program*, 21 May 1999

DoDI 5535.8, *DoD Technology Transfer (T2) Program*, 14 May 1999

AFPD 61-3, *Domestic Technology Transfer*

AFI 33-112 *Computer Systems Management*, 1 Dec 1997

AFI 38-401, *The Air Force Suggestion Innovative Development Through Employee Awareness (IDEA) Program*, 10 Oct 1994

AFI 51-303, *Intellectual Property - Patents, Patent Related Matters, Trademarks, Copyrights*, 1 Sep 1998

AFI 61-302, *Cooperative Research and Development Agreements*

AFMAN 37-139 *Records Disposition Schedule*, 1 Mar 1996

Air Force Technology Transfer Handbook

***Abbreviations and Acronyms***

**AFI**—Air Force Instruction

**AFPD**—Air Force Policy Directive

**CRADA**—Cooperative Research and Development Agreement

**CTA**—Commercial Test Agreement

**DDR&E**—Director Defense Research and Engineering

**DFAS**—Defense Finance and Accounting Service

**DTT**—Domestic Technology Transfer

**EPA**—Education Partnership Agreement

**FLC**—Federal Laboratory Consortium for Technology Transfer

**HQ USAF/JAG**—Office of The Judge Advocate General, General Law Division

**OPR**—Office of Primary Responsibility

**ORTA**—Office of Research and Technology Applications

**PIA**—Partnership Intermediary Agreement

**SAF/AQR**—Office of the Deputy Assistant Secretary for Acquisition (Science, Technology and Engineering)

**SAF/GCQ**—Office of the Deputy General Counsel (Acquisition)

**TEO**—Technology Executive Officer

### *Terms*

**Air Force Program Management Team**—The Air Force office (the Air Force Technology Transfer Program Manager and staff) responsible for implementing this policy directive and its instructions.

**Air Force Technology Transfer Integrated Planning Team**—This is a working level group whose membership includes all Air Force Technology Transfer Focal Points, each participating command's Technology Transfer Manager, the Air Force Program Management Team, and various support personnel (including, but not limited to legal, public affairs, financial management, contracting, etc.) The group meets regularly and works together to resolve common problems, share best practices and lessons learned, and initiate program and process improvements.

**Application Assessment**—A summary emphasizing potential application of technological developments having potential use by state and local government or private industry.

**Commercial Test Agreement (CTA)**—An agreement under 10 U.S.C. § 2539b between any person or entity and an Air Force laboratory, center, or other testing facility for the purpose of providing to the person or entity, at a prescribed fee, Air Force services to test materials, equipment, models, computer software, and other items. NOTE: The use of Major Range Test Facility Bases is governed exclusively by DoD Directive 3200.11, "The Major Range and Test Facility Base," as amended to implement 10 U.S.C. § 2681.

**Cooperative Research and Development Agreement (CRADA)**—An agreement between one or more federal laboratories and/or technical activities and one or more nonfederal parties. Under a CRADA, the government laboratories and/or technical activities shall provide personnel, services, facilities, equipment, or other resources with or without reimbursement (but not funds to the nonfederal parties). CRADAs are instruments that may be used in all aspects of a product and/or system life cycle where RDT&E activities occur. The nonfederal parties shall provide funds, personnel, services, facilities, equipment, or other resources toward the conduct of specified research and development efforts that are consistent with the missions of the laboratory and/or technical activity. The CRADA partners shall share in the intellectual property developed under the effort. This term does not include a procurement contract or cooperative agreement as used in 31 U.S.C. §§ 6303, 6304, and 6305.

**Education Partnership Agreement (EPA)**—An agreement under 10 U.S.C. § 2194 between educational institutions and an Air Force scientific and engineering activity (ies) for the purpose of encouraging and enhancing study in scientific disciplines at all levels of education. The educational institutions referred to in the preceding sentence are local educational agency [agencies], colleges, universities, and any other nonprofit institutions that are dedicated to improving science, mathematics, and engineering education. Under such a partnership agreement, the director of an Air Force scientific and engineering activity may provide assistance to the educational institution by-- (1) loaning defense laboratory equipment to the institution for any purpose and duration in support of such agreement that the director considers appropriate; (2) notwithstanding the provisions of the Federal Property and Administrative Services Act of 1949 (40 U.S.C. 471 et seq.) or any provision of law or regulation relating to transfers of surplus property, transferring to the institution any computer equipment, or other scientific equipment, that is--

(A) commonly used by educational institutions;



(B) surplus to the needs of the defense laboratory; and  
(C) determined by the director to be appropriate for support of such agreement; (3) making laboratory personnel available to teach science courses or to assist in the development of science courses and materials for the institution; (4) involving faculty and students of the institution in defense laboratory research projects; (5) cooperating with the institution in developing a program under which students may be given academic credit for work on defense laboratory research projects; and (6) providing academic and career advice and assistance to students of the institution.

**Laboratory and/or Technical Activity**—For this instruction, that phrase is, as broadly defined, in 15 U.S.C. 3710a(d)(2)(A), and shall include the following:

A facility or group of facilities owned, leased, or otherwise used by the Air Force, a substantial purpose of which is the performance of research, development, or engineering by employees of the Air Force.

Use of this broad definition is deliberate. That definition is not confined to those Air Force components that are formally titled “laboratories.” The intent of that definition is to encompass the wide range of organizations and arrangements that function as laboratories and/or technical activities in Air Force research, development, and engineering programs. It shall include laboratories and/or technical activities and reference more diverse arrangements that shall provide a virtual laboratory capability. For example, an Air Force component may have a virtual lab involving a management function accomplished in an Air Force activity, plus a dispersed set of research activities to be accomplished by a variety of organizations outside of the sponsoring and/or managing activity. Those capabilities are included in test, logistics, and product centers; depots; arsenals; program offices; and all Air Force offices providing for RDT&E. This is consistent with 15 U.S.C. 3710a(d)(2)(A) which uses such encompassing terms as “facility.” This broad definition is in accordance with new DoD practices.

While the definition cited in 15 U.S.C. 3710a(d)(2)(A) occurs in a section of the United States Code dealing with CRADAs, the use of that broad definition in the DoD Directive 5535.3 and DoD Instruction 5535.8 shall not be limited to matters involving CRADAs. The broad definition applies to all citations of laboratories and/or technical activities in this instruction.

**Office of Research and Technology Applications (ORTA)**—Office required by 15 U.S.C. § 3710(b) to oversee the *Domestic Technology Transfer Program* at a laboratory and/or technical activity. Normally, an ORTA comprises individuals with expertise in marketing, public relations, intellectual property, patent law, and scientific and technical information.

**Partnership Intermediary Agreement (PIA)**—A Memorandum of Understanding or contract pursuant to 15 U.S.C. § 3715 with a partnership intermediary, as defined by 15 U.S.C. § 3715(c), that provides for the partnership intermediary to perform services for the Air Force that increase the likelihood of success in the conduct of cooperative or joint activities of the Air Force with small businesses.

**Technology Transfer**—The communication (sharing) of knowledge, expertise, facilities, equipment, and other resources, for application to military and non-military systems. Domestic technology transfer shall include the following:

Spin-off activities that shall demonstrate DoD technology; e.g., commercial viability of technologies already developed or presently being developed for U.S. security purposes. The primary purpose of those activities, which encompass much technology transfer, shall be to promote and make available existing DoD-owned or -developed technologies and technical infrastructure to a broad spectrum of non-DoD applications.

Dual-use science and technology and other activities that develop technologies that shall have both DoD and non-DoD applications.

Spin-on promotion activities that shall demonstrate the U.S. security utility of technologies developed outside of the DoD. That goal shall be to incorporate the innovative technology into military systems to meet mission needs at a lower acquisition cost by taking advantage of the economies of scale by purchasing from a larger industrial base.

**30 MAY 2001**



**Scientific/Research and Development**

**COOPERATIVE RESEARCH AND  
DEVELOPMENT AGREEMENTS**

**COMPLIANCE WITH THIS PUBLICATION IS MANDATORY**

---

**NOTICE:** This publication is available digitally on the AFDPO WWW site at:  
<http://afpubs.hq.af.mil>

---

OPR: SAF/AQR  
(Dr. Van Blackwood)  
Supersedes AFI 61-302 26 July 1994 and AFI  
61-303 25 July 1994

Certified by: SAF/AQR  
(Dr. Donald C. Daniel)  
Pages: 8  
Distribution: F

---

This instruction establishes policies and procedures for executing Cooperative Research and Development Agreements (CRADAs) and licenses or assignments of intellectual property developed under CRADAs between the Air Force and the public and private sector, including industry and academia. The instruction implements Air Force Policy Directive (AFPD) 61-3, *Domestic Technology Transfer*; United States Code Title 15 Commerce and Trade Chapter 63 Technology Innovation Section 3701 (*15 USC 3701 et seq.*); Executive Order 12591, *Facilitating Access to Science and Technology*, 10 April 1987; Department of Defense (DoD) Directive 5535.3, *DoD Domestic Technology Transfer Program*, May 21, 1999; and DoD Instruction 5535.8, *DoD Technology Transfer (T2) Program*, May 14, 1999. Maintain and dispose of records created as a result of the processes prescribed in this publication in accordance with AFMAN 37-139, *Records Disposition Schedule*.

**SUMMARY OF REVISIONS**

This instruction updates, clarifies, and streamlines previous guidelines for CRADAs. It broadens applicability to all laboratories and/or technical activities, includes updates from changes in the public law, and uses the Air Force Technology Transfer Handbook as the source of operational guidelines. It also incorporates AFI 61-303, *Licensing Inventions Made Under Cooperative Research And Development Agreements*.

**1. CRADA Signature Process:**

**1.1. Signature Authority of CRADAs.** Commanders and directors of Air Force laboratories and/or technical activities may negotiate and enter into CRADAs on behalf of the Air Force with various organizations in the public and private sector subject to the review process outlined in section 2. (Ref: AFI 61-301, 2.1)

**1.2. Collaborating Parties.** The parties with which the Air Force may enter into CRADAs are:

- 1.2.1. Other Federal agencies in conjunction with other non-federal parties
- 1.2.2. Units of state or local government
- 1.2.3. Industrial organizations (for example, consortia, corporations, partnerships, limited partnerships, industrial development organizations)
- 1.2.4. Public and private foundations
- 1.2.5. Nonprofit organizations (including universities)
- 1.2.6. Other persons (including licensees of inventions owned by the Air Force)

**1.3. Signature Discretion.** In considering whether to enter into a CRADA, the Signature Authority shall take into account the present or planned work of the laboratory and/or technical activity.

**1.4. Criteria for Selecting CRADA Partners.** In considering whether to enter into a CRADA, the Signature Authority gives:

- 1.4.1. Special consideration to small business firms and consortia involving small business firms.
- 1.4.2. Preference to business units located in the United States which agree that those products embodying inventions made under CRADAs will be substantially manufactured in the United States.
- 1.4.3. In the case of parties subject to the control of a foreign company or government, consideration to whether such a foreign government permits US agencies, organizations, or other persons to enter into CRADAs and licensing agreements.
- 1.4.4. Consideration to export control regulations, policies governing militarily critical technology, or any other restrictions on international technology transfer control set forth in Department of Defense (DoD) and Air Force directives and instructions.

**1.5. Legal Counsel.** Before entering into a CRADA, license agreement under a CRADA, or assignment of patent rights under a CRADA, commanders or directors must get legal counsel review of each such agreement for its legal sufficiency. The Major Command legal office or servicing legal office using local command procedures shall give such review.

## **2. CRADA Review Process:**

**2.1. Review Authority for CRADAs.** The Air Force Technology Executive Officer (TEO), Commander, Air Force Research Laboratory, has been delegated the CRADA reviewing authority for all Air Force activities. The TEO has the authority to redelegate this authority in accordance with AFI 61-301, paragraph 1.2.

2.2. The reviewing official has authority to approve, disapprove, or require modification of any CRADA within 30 days, beginning on the date the reviewing official receives the CRADA in his or her office.

2.3. When the reviewing official disapproves or requires modification of an agreement, he or she sends a written explanation to the Signature Authority within the 30-day period of paragraph 2.2.

2.4. CRADAs not reviewed, modified, or disapproved within 30 days of their receipt in the reviewing official's office become effective.



2.5. CRADAs shall be negotiated consistent with the Air Force model CRADA and guidelines found in the Air Force Technology Transfer Handbook. In any case when the negotiation of a CRADA involves a substantive modification to a provision in the model CRADA (i.e., a change to CRADA language required by the guidelines to be used verbatim), SAF/GCQ shall be consulted.

### **3. Delegation of CRADA Authority:**

3.1. The TEO may redelegate the reviewing official authority to commanders and directors of laboratories and/or technical activities for CRADAs executed by their activities or their subordinate activities. This reviewing official authority may not be further delegated.

3.2. The holder of such delegated CRADA review authority shall designate the CRADA Signature Authority to his or her next lower management level. In no case shall the same person act as signature and review authority on a CRADA.

### **4. Functions and Endeavors Allowed Under a CRADA:**

**4.1. Resources.** CRADAs should be constructed to ensure Air Force receipt of adequate consideration for the technology being transferred to the outside partner. Air Force organizations may accept, retain, and use resources from, and provide resources to, CRADA partners. These resources may be in the following categories:

#### **From the Air Force:**

- Personnel
- Personal Property (Equipment, including maintenance support for the equipment or personal property)
- Facilities
- Services
- Intellectual Property

#### **From the CRADA Partner:**

- Personnel
- Personal Property (Equipment)
- Facilities
- Services
- Intellectual Property
- Funds

4.1.1. Authority to accept, retain, and use funds derived from CRADAs. The expressed authority in 15 U.S.C. § 3710a(b)(1) to “accept, retain, and use” funds from a collaborating party under a CRADA, in combination with the spending authority granted in 15 U.S.C. § 3714, provides an exception to the general prohibition on augmenting appropriations by permitting Air Force activities to retain funds received under a CRADA without violating the Miscellaneous Receipts Statute, 31 U.S.C. § 3302(b).

4.1.2. Receipt of CRADA income. CRADA income, other than royalty or other income from licensing or assignment of inventions, is to be deposited under the servicing Defense Accounting Office/Financial Services Office (DAO/FSO) ADSN, into suspense account 57F3875.CDA\*. The receiving DAO/FSOs will establish local suspense accounts 57F3875.ROY\* and 57F3875.CDA\* in their databases as fund type “K” records. Replace the asterisk in the fourth position of the limits with the fiscal year in which the money was received by the Air Force.

4.1.3. Uses of CRADA income. The funds derived from CRADAs, other than royalty or other income from licensing or assignment of inventions, may be used or obligated by appropriate documentation showing the withdrawal of the amount and commitment or obligation to the designated appropriation for the activity’s usage. This may be research, development, testing, and evaluation (RDT&E), operation and maintenance (O&M), one of the procurement accounts, or Air Force Working Capital Fund. CRADA revenue is available for obligation only until the end of the fiscal year in which the appropriation to which it is deposited expires for new obligations.

4.1.4. Hiring personnel for CRADAs. Air Force activities may use the funds received from a CRADA partner to hire personnel to carry out the CRADA. Such personnel shall not be subject to full-time equivalent restrictions of the Air Force.

4.1.5. Government property may be provided to a CRADA partner on an exclusive, but temporary basis, in accordance with 15 U.S.C. § 3710a(b)(1). Air Force activities must comply with all demilitarization regulations prior to providing property to a CRADA partner on an exclusive basis. Government property provided under a CRADA is not subject to a separate lease agreement. Model terms and conditions for providing such property are found in the Model CRADA. These terms generally will not apply to consumable property.

**4.2. Determination of Intellectual Property Rights.** For the purposes of negotiating pre-existing rights and/or administrative purposes, Air Force activities may need to determine rights in intellectual property. Any such determinations should be made with the advice of appropriate legal counsel. Any invention made under a CRADA, whether made solely by the CRADA partner or solely by an Air Force employee, or jointly, shall be disclosed to the servicing patent counsel or, if none is known, to AFMC LO/JAZ.

**4.3. License Grants.** The CRADA may contain a grant or an agreement in advance to grant to a CRADA partner patent licenses or assignments, or options thereto, for any invention made in whole or in part by a Federal employee under the CRADA for reasonable compensation when appropriate. The CRADA may also grant a license, subject to section 209 of title 35, United States Code, to an invention which is federally owned, for which a patent application was filed before the signing of the agreement, and directly within the scope of the work under the CRADA.

4.3.1. When licenses for inventions made under a CRADA are granted or contemplated, the CRADA shall provide that the CRADA partner has the option to choose an exclusive license for a pre-negotiated field of use for any invention made under the CRADA. If there is more than one CRADA partner, then the CRADA partners shall be offered the option to hold licensing rights that collectively encompass the rights that would be held under such an exclusive license by one party.

4.3.2. In consideration for the Air Force’s contribution under the CRADA, the Air Force, on behalf of the U.S. Government, shall retain a nonexclusive, nontransferable, irrevocable, paid-up license to practice an invention, made by a Federal employee under the CRADA, or to have the invention practiced throughout the world by or on behalf of the Government, and other rights that

the commander or director may deem appropriate or otherwise are required by law. In the exercise of such a license, the Air Force shall not publicly disclose trade secrets or commercial or financial information that is privileged or confidential within the meaning of 5 U.S.C. § 552(b)(4), or which would be considered as such if it had been obtained from a non-federal party.

4.3.3. The CRADAs shall ensure that the CRADA partner may retain title to any invention made solely by its employee(s) in exchange for normally granting the Government a nonexclusive, non-transferable, irrevocable, paid-up license to practice the invention or have the invention practiced throughout the world by, or for, the Government for research or other Government purposes

#### **4.4. Responsibility for Licensing.**

4.4.1. Commanders or directors of Air Force laboratories and/or technical activities will execute, on behalf of the Air Force, patent licenses or assignments for Government-owned inventions made under CRADAs that are in the custody of the Air Force. The commanders or directors may redelegate this authority to their subordinate activities. **NOTE:** Licenses concerning inventions made under CRADAs only are governed by this Instruction. Licenses concerning all other inventions in the custody of the Air Force are governed by AFI 51-303.

4.4.2. Patent counsel for the servicing legal office shall provide assistance to commanders or directors of Air Force activities in preparing, negotiating and reviewing such licenses or assignments of inventions made under CRADAs. For Air Force activities that do not have a designated servicing legal office patent counsel, AFMC LO/JAZ will provide the necessary assistance.

4.4.3. The Deputy General Counsel (Acquisition), SAF/GCQ, has general responsibility for the legal aspects of the Air Force's patent licensing/assignment program. A copy of all licenses or assignments of inventions made under a CRADA negotiated by an Air Force activity, and any sub-licenses, shall be provided to SAF/GCQ. Patent license agreements and assignments that deviate substantially from the Model Patent License or Assignment Agreement, as provided in the Air Force Technology Transfer Handbook, must also be reviewed and approved by SAF/GCQ.

4.4.4. SAF/GCQ will administer all patent licenses and assignments including receiving royalties or other payments, and disbursing such royalties or other payments. SAF/GCQ will maintain records of all such licenses and assignments.

#### **4.5. Restrictions and Conditions for Patent Licenses and Assignments.**

4.5.1. Patent licenses and assignments for Government-owned inventions made under CRADAs will be negotiated by the Technology Transfer Focal Point for the activity where the invention was made with the assistance of the servicing legal office patent counsel. Patent licenses and assignments shall be negotiated consistent with the Air Force model patent licenses and assignment guidelines as provided in the Air Force Technology Transfer Handbook.

4.5.2. Licenses normally will contain a royalty provision or provide for some other form of consideration flowing to the Government. Terms and conditions shall be appropriate for the protection of the interests of the Federal Government and the public and not in conflict with law or regulation.

**4.6. Modification and Termination of a Patent License.** Before terminating or modifying any patent license or assignment (other than by mutual agreement) for Government-owned inventions made under a CRADA, the commander or director of the Air Force laboratory and/or technical activity or delegee shall furnish the licensee and any sublicensee of record a written notice of intention to

modify or terminate the license. Further, the commander or director or delegate shall allow the licensee and any sublicensee, after such notice, to remedy any breach of the license or show cause why the license should not be modified or terminated. Any such modification or termination shall be coordinated with local patent servicing office and SAF/GCQ.

**4.7. Other Intellectual Property License Agreements.** Pursuant to 15 U.S.C. §3710a(a)(2), Air Force activities may negotiate license agreements for Government-owned inventions made or intellectual property developed at the Air Force activity. These agreements must comply with 35 U.S.C. § 207, *Patentability, Grant of Patents*, and AFI 51-303, *Intellectual Property -- Patents, Patent Related Matters, Trademarks, and Copyrights*.

**4.8. Disclosure of License Plans and Reports.** The Air Force may treat reports submitted by licensees, when they contain commercial or financial information, as privileged information, which is not subject to disclosure (35 U.S.C. § 209, 15 U.S.C. § 3710a(c)(7), and 5 U.S.C. § 552). In the exercise of any nonexclusive license right retained by the Air Force on behalf of the U.S. Government, the Air Force shall not publicly disclose trade secrets or commercial or financial information that is privileged or confidential within the meaning of 5 U.S.C. § 552(b)(4) or which would be considered as such if it had been obtained from a non-federal party.

**4.9. Commercial Rights Permission.** Air Force activities may permit Federal employees or former Federal employees of the organization to participate in efforts to commercialize inventions that they made while in the employment or service of the United States. Such an arrangement must comply with Air Force requirements and standards of conduct.

**5. Scientific and Technical Information Requirements for Air Force Sponsors:** Offices of Research and Technology Applications (ORTAs) shall support DoD scientific and technical information gathering efforts by collecting and maintaining information in support of the Defense Technology Transfer Information System (DTTIS). Information will be reported to DTTIS through the Air Force Technology Transfer Management Team.

DARLEEN A. DRUYUN  
Principal Deputy Assistant Secretary  
(Acquisition & Management)



## Attachment 1

### GLOSSARY OF REFERENCE AND SUPPORTING INFORMATION

#### *References*

United States Code Title 15 Commerce and Trade Chapter 63 Technology Innovation Section 3701 (15 USC 3701 et. seq.)

The Federal Technology Transfer Act of 1986

5 U.S.C. §552 Freedom of Information Act

31 U.S.C. § 3302 Miscellaneous Receipts

31 U.S.C. §§ 6303-6305

Executive Order 12591, *Facilitating Access to Science and Technology*

DoD Directive 5535.3, *DoD Domestic Technology Transfer Program*, May 21, 1999

DoD Instruction 5535.8, *DoD Technology Transfer (T2) Program*, May 14, 1999

AFPD 61-3, *Domestic Technology Transfer*

AFI 51-303, *Intellectual Property -- Patents, Trademarks, and Copyrights*, September 1, 1998

AFI 61-301, *The Domestic Technology Transfer Process and the Offices of Research and Technology Application*

AFMAN 37-139, *Records Disposition Schedule*, 1 Mar 1996

#### *Abbreviations and Acronyms*

**AFMC LO/JAZ**—Air Force Materiel Command Law Office, Directorate of Intellectual Property Law

**CRADA**—Cooperative Research and Development Agreement

**DAO/FSO**—Defense Accounting Office/Financial Services Office

**DTIC**—Defense Technical Information Center

**DTTIS**—Defense Technology Transfer Information System

**SAF/AQR**—Office of the Deputy Assistant Secretary for Acquisition (Science, Technology and Engineering)

**SAF/GCQ**—The Office of the Deputy General Counsel (Acquisition)

**TEO**—Technology Executive Officer

#### *Terms*

**Air Force Program Management Team**—The Air Force office (the Air Force Technology Transfer Program Manager and staff) responsible for implementing this policy directive and its instructions.

**Air Force Technology Transfer Handbook**—The compendium of guidelines, best practices, and lessons learned for the day-to-day operational execution of the technology transfer process.

**Cooperative Research and Development Agreement (CRADA)**—An agreement between one or more federal laboratories and/or technical activities and one or more nonfederal parties. Under a CRADA, the government laboratories and/or technical activities shall provide personnel, services, facilities, equipment, or other resources with or without reimbursement (but not funds to the nonfederal parties). CRADAs are instruments that may be used in all aspects of a product and/or system life cycle where RDT&E activities occur. The nonfederal parties shall provide funds, personnel, services, facilities, equipment, or other resources toward the conduct of specified research and development efforts that are consistent with the missions of the laboratory and/or technical activity. The CRADA partners shall share in the intellectual property developed under the effort. This term does not include a procurement contract or cooperative agreement as used in 31 U.S.C. §§ 6303, 6304, and 6305.

**Invention**—Any invention or discovery that is or may be patentable or otherwise protected under Title 35 of the United States Code or any novel variety of plant which is or may be protectable under the Plant Variety Protection Act (7 U.S.C. § 7321 et seq.).

**Laboratory and/or Technical Activity**—For this instruction, that phrase is, as broadly defined, in 15 U.S.C. 3710a(d)(2)(A), and shall include the following:

A facility or group of facilities owned, leased, or otherwise used by the Air Force, a substantial purpose of which is the performance of research, development, or engineering by employees of the Air Force.

Use of this broad definition is deliberate. That definition is not confined to those Air Force components that are formally titled “laboratories.” The intent of that definition is to encompass the wide range of organizations and arrangements that function as laboratories and/or technical activities in Air Force research, development, and engineering programs. It shall include laboratories and/or technical activities and reference more diverse arrangements that shall provide a virtual laboratory capability. For example, an Air Force component may have a virtual lab involving a management function accomplished in an Air Force activity, plus a dispersed set of research activities to be accomplished by a variety of organizations outside of the sponsoring and/or managing activity. Those capabilities are included in test, logistics, and product centers; depots; arsenals; program offices; and all Air Force offices providing for RDT&E. This is consistent with 15 U.S.C. 3710a(d)(2)(A) which uses such encompassing terms as “facility.” This broad definition is in accordance with new DoD practices.

While the definition cited in 15 U.S.C. 3710a(d)(2)(A) occurs in a section of the United States Code dealing with CRADAs, the use of that broad definition in DoD Directive 5535.3 and DoD Instruction 5535.8 shall not be limited to matters involving CRADAs. The broad definition applies to all citations of laboratories and/or technical activities in this instruction.

**Made**—In relation to any invention means the conception or first actual reduction to practice of such Invention.